



**The use of library resources by doctoral students of the
University of KwaZulu-Natal, College of Humanities,
Pietermaritzburg Campus**

Tamunotonye Ibimina Idoniboye-Obu
(NCE, B. ED, PGDIS, B.Bibl (Hons))

Submitted in partial fulfillment of the requirements for the degree of Masters of
Information Studies (Coursework 50%) in the Information Studies Programme,
School of Social Sciences, College of Humanities, University of KwaZulu-Natal,
Pietermaritzburg

2013

Declaration

I, Tamunotonye Ibimina Idoniboye-Obu, declare that:

- (i) The research reported in this dissertation, except where otherwise indicated, is my original work.
- (ii) This dissertation has not been submitted for any degree or examination at any other university.
- (iii) This dissertation does not contain other persons' data, pictures, graphs or other information, unless specifically acknowledged as being sourced from other persons.
- (iv) This dissertation does not contain other persons' writing, unless specifically acknowledged as being sourced from other researchers. Where other sources have been quoted, then:
 - a) Their words have been re-written but the general information attributed to them has been referenced
 - b) Where their exact words have been used, their writing has been placed inside quotations marks, and referenced
- (v) Where I have reproduced a publication of which I am an author, co-author or editor, I have indicated in detail which of the publication was actually written by myself alone and have fully referenced such publications
- (vi) This dissertation does not contain text, graphics or tables copied and pasted from the internet, unless specifically acknowledged, and the source being detailed in the dissertation and the Reference sections.

Signed: -----

Supervisor:

Name: -----

Signature: -----

Dedication

This dissertation is dedicated to God Almighty who in His inestimable mercy has kept me alive to this moment to further my studies and to complete it, for Him alone is the glory, honour, power, adoration, forever. Amen.

Acknowledgements

I would start by expressing my earnest gratitude to:

God Almighty for keeping me alive, safe through this programme despite the attacks of the enemy on my life.

My supervisor, Dr Ruth Hoskins, for her diligent effort in directing me with corrections and on how to go about the dissertation and completing it.

The Information Studies lecturers, Prof Christine Stilwell, Mrs. Fiona Bell, Mr. Athol Leach and Prof Stephen Mutula that have impacted on my life all through my studies from diploma to the present. May God bless all of you.

Mr. Mark Rieker lecturer in Policy and Development discipline for assisting me with SPSS, I say may God bless you and your household.

The doctoral students in the College of Humanities of the Pietermaritzburg Campus, and the five subject librarians of the Pietermaritzburg Campus library for taking part in the study.

My treasured husband, first for believing in me, and encouraging me throughout the master's degree. Secondly, for being of tremendous help to me, in assisting and supporting me with my studies. I want to say that I love you and may God grant you many more years and inspiration in your profession.

My parents, I want to say I love you both for releasing me to go with my husband to a foreign land to study. Thanks and may the good Lord keep you both in His care and bless you till I see you again.

My siblings and friends who have been praying for me, I say may the good Lord bless and keep each one of you and your families in good health.

Abstract

The purpose of this study was to examine the use of library resources by doctoral students of the University of KwaZulu-Natal (UKZN), College of Humanities, Pietermaritzburg campus. The study investigated the extent of the use of the library resources by doctoral students in the College of Humanities, the type of library resources used and the factors that influenced such use. The study also looked at the competency of doctoral students to use them.

The study population consisted of registered doctoral students in the College of Humanities as at April 2012 when the data was collected. Out of a total of 118 questionnaires distributed, 99 doctoral students responded, which yielded a response rate of 83.9%. The method that the research took was triangulation where both qualitative and quantitative data were collected. The researcher used one-on-one interviews with subject librarians at the UKZNP Library and a questionnaire as data collection instruments. The quantitative data was analyzed using SPSS version 21, while the qualitative data was analyzed using thematic content analysis. The questionnaire was pre-tested before it was used.

The findings of the study revealed that a majority of the doctoral students did use the UKZNP Library resources for their research studies. As regards the importance of the library resources, out of 98 respondents who responded to the question, 77 (78.6%) of the respondents indicated that their use of library resources was because of its importance to their research study. Regarding the dependency on library resources, out of 98 respondents who responded to the question, 60 (61.2%) respondents said their extent of use of the library's resources was because they were very dependent on the resources of the library for their research study. In terms of usage of the library's resources, out of the 99 respondents who responded to the question, 50 (53.8%) said they use the library's resources more for their research study.

When investigating the types of library resources used by doctoral students in the College of Humanities, 85 (86.7%) respondents used electronic databases, while 77 (78.6%) used print materials (books and journals); 68 (69.4%) used the inter-library loan service and 60 (61.2%) used theses and dissertations amongst other resources. With regards to the influencing factors for such use of library resources by doctoral students in the College of Humanities, the study found that 93 (97.9%) influencing factors for the respondents was to borrow materials, like printed books and

journal articles, for their research studies, while for 52 (54.7%) respondents, a factor was to use inter-library loan services for their research studies and for 38 (40.0%) it was to search the databases for information for their research studies.

Furthermore, the study **also wanted** to determine how competent the doctoral students in the College of Humanities were in using the different library resources of the UKZNP Library. Out of 99 respondents, 79 (79.8%) considered themselves to be competent users of the different library resources with particular reference to electronic resources, while 16.2 (16.2%) considered themselves not to be competent and four (4.0%) did not respond to the question.

Having seen the extent of use of the library resources by doctoral students in the College of Humanities, the type of resources the doctoral students used, the factors that influenced such use and the competency of use, the study also discovered that there were challenges that these doctoral students encountered while using the library's resources. Some of these challenges were: difficulties in locating resources on shelves as a result of the misplaced and disorganized arrangement of material; out of date printed resource material and insufficient time for borrowing books on reserve. With electronic databases, some of the challenges were that important journals and books were not available electronically, remote access was difficult because of passwords and logins, and some electronic databases only offer abstracts rather than full text articles. In addition, electronic databases were often very slow to conclude searches. A final challenge encountered by the doctoral students was that subject librarians were always very busy attending to students and sometimes not available to help.

Recommendations based on the findings of the study were also presented in chapter five and six of this study. Suggestions on how the library can better serve the doctoral students of the UKZNP campus were also given in the concluding chapter.

List of abbreviations and acronyms

CATNIP: Cataloguing Network in Pietermaritzburg

CD: Compact disc

CD-ROM: Compact Disc Read Only Memory

CRL: Cecil Renaud Library

CSEQ: College Student Experiences Questionnaire

DoE: Department of Education

DS: Doctoral Students

DVD: Digital Versatile/Video Disc

EIS: Electronic Information Sources

FTP: File Transfer Protocol

ICT: Information Communication Technology

IL: Information Literacy

ILL: Interlibrary Loan

ISP: Information Search Process

LU: Library Use

MSc: Master of Science

OPAC: Online Public Access Catalogue

PCT: Personal Construct Theory

PhD: Doctor of Philosophy

TSU: Tennessee State University

UGC: University Grants Commission

UKZN: University of KwaZulu-Natal

UKZNP: University of KwaZulu-Natal, Pietermaritzburg

UMUC: University of Maryland University College

WWW: World Wide Web

List of Figures

Figure 1: Schools.....	41
Figure 2: Nature of study.....	45
Figure 3: Importance of UKZNP Library.....	52
Figure 4: Dependence on UKZNP Library	53
Figure 5: Change of use of Library.....	55

List of Tables

Table 1: Distribution of registered doctoral students in the College of Humanities by school....	34
Table 2: Clusters in the five schools.....	42
Table 3: Disciplines	43
Table 4: Year of study.....	44
Table 5: Age.....	46
Table 6: Race.....	47
Table 7: Nationality.....	48
Table 8: Frequency of visits.....	50
Table 9: Reasons for visiting the library.....	51
Table 10: Library resources used.....	56
Table 11: Importance of print resources.....	60
Table 12: Frequency of use of print resources.....	61
Table 13: Electronic resources used.....	64
Table 14: Frequency of use of electronic resources.....	65
Table 15: Most useful electronic databases.....	66
Table 16: Access points for electronic databases.....	67

Table of contents

Declaration	ii
Dedication	iii
Acknowledgements	iv
Abstract	v
List of abbreviations and acronyms	vii
List of figures	viii
List of tables	ix
Chapter One: Introduction to the study	1
1.0 Introduction.....	1
1.1 Background of the study.....	2
1.1.1 The University’s vision and mission statement.....	3
1.1.2 Library mission and vision statement and strategic goal.....	3
1.1.3 Strategic goals of UKZN Library.....	3
1.1.4 Libraries of the University of KwaZulu-Natal, Pietermaritzburg (UKZNP).....	4
1.2 Rationale for the study.....	5
1.3 The research problem.....	6
1.4 Key questions to be asked.....	6
1.5 Broader issues to be investigated.....	7
1.5.1 Information literacy (IL).....	7
1.5.2 Nature of doctoral studies.....	7
1.5.2.1 Research focus of doctoral students.....	8
1.6 Definition of terms.....	8
1.6.1 Doctoral students (DS).....	8
1.6.2 Library use (LU).....	9
1.7 Principal theories and conceptual framework on which the study is based.....	9
1.8 Delimitations and limitations.....	12
1.8.1 Overview of the chapter.....	12
1.9 Summary of the chapter.....	12

Chapter Two: Literature review.....	13
2.0 Introduction	13
2.1 The role of academic library in the provision of library resources	14
2.2 Purposes of academic libraries in institutions of higher learning.....	15
2.3 Library resources in an academic library.....	16
2.3.1 Books	16
2.3.2 Journals	16
2.3.3 Computers/printers/photocopiers/scanners.....	16
2.3.4 Internet.....	17
2.3.5 Subject or reference librarians.....	17
2.3.6 Study rooms.....	17
2.3.7 Virtual library.....	18
2.4 Information	18
2.4.1 Information seeking	19
2.4.2 Information seeking behaviour.....	19
2.4.3 Information behaviour.....	19
2.4.4 Information needs of doctoral students.....	19
2.4.5 Library and information skills and competencies of doctoral students.....	21
2.4.6 Information literacy (IL).....	22
2.5 Related studies.....	22
2.5.1 Previous studies done internationally	23
2.5.2 Previous studies done in African and South African universities.....	27
2.6 Summary of the chapter.....	31
Chapter Three: Research methodology.....	32
3.0 Introduction	32
3.1 Research design	33
3.2 Population.....	34
3.3 Data collection instruments.....	34
3.3.1 Questionnaires.....	35
3.3.2 Interviews.....	35
3.4 Pre-testing of questionnaire.....	36

3.5 Data analysis	37
3.6 Validity and Reliability	37
3.7 Summary of the chapter	38
Chapter Four: Results of the survey	39
4.0 Introduction.....	39
4.1 Response rate.....	39
4.2 Questionnaire results.....	40
4.3 Section A- Background information.....	40
4.3.1 Degree registered for.....	40
4.3.2 Schools students belonged to.....	41
4.3.3 Cluster the students belonged to.....	42
4.3.4 Discipline of the students.....	43
4.3.5 Year of study.....	44
4.3.6 Nature of study.....	45
4.3.7 Gender of doctoral students	46
4.3.8 Age of respondents	46
4.3.9 Race	47
4.3.10 Nationality of the students	48
4.3.11 Ownership of a personal computer.....	49
4.4 Section B - Use of library resources.....	49
4.4.1 Use of the UKZNP Library.....	49
4.4.2 Frequency of visits to the UKZNP Library.....	50
4.4.3 Reasons for visiting the Library.....	51
4.4.4 Importance of UKZNP Library.....	52
4.4.5 Dependence on UKZNP Library.....	53
4.4.6 Reasons for dependence on the Library.....	54
4.4.7 Change of use of UKZNP Library.....	55
4.4.8 Library resources used.....	56
4.4.9 Attendance of library training or orientation.....	56
4.4.10 Rating of training or orientation.....	57
4.4.11 Overall satisfaction with the services of UKZNP Library.....	57

4.4.12 Consultation with subject librarians.....	58
4.4.13 Assistance from subject librarians on how to use the electronic resources.....	58
4.4.14 Assistance from subject librarians on how to locate materials in the library.....	58
4.4.15 Assistance from subject librarians on how to use the printers/copiers in the library.....	58
4.4.16 Satisfaction with the service provided by subject librarians.....	59
4.4.17 Challenges experienced when consulting the subject librarians.....	59
4.4.18 Use of print resources.....	59
4.4.19 Importance of print resource to studies.....	60
4.4.20 Frequency of use of print resources.....	61
4.4.21 Satisfaction with print resources.....	61
4.4.22 Challenges experienced when using print resources.....	61
4.4.23 Familiarity with electronic resources.....	62
4.4.24 Use of UKZNP electronic resources.....	62
4.4.25 Competent users of library’s electronic resources.....	62
4.4.26 Electronic resources used.....	63
4.4.27 Frequency of use of electronic resources.....	65
4.4.28 Most useful electronic databases.....	66
4.4.29 Different access points of electronic databases.....	67
4.4.30 Satisfaction with electronic resources.....	68
4.4.31 Challenges experienced when using electronic databases	68
4.4.32 Use of Interlibrary loan service	68
4.4.33 Recommendations on how to improve the UKZNP Library services	69
4.5 Summary of questionnaire results.....	70
4.6 Subject librarians interview results.....	70
4.6.1 Biographical information of the subject librarians	70
4.6.2 Alerting doctoral students about new library resources that were available in their field	71
4.6.3 Offering of training on how to access and use information resources in the library	71
4.6.4 Availability of resource guides in the library for doctoral students	

to use and search for information they need.....	71
4.6.5 Activities or services performed to assist doctoral students.....	72
4.6.6 Problems encountered by doctoral students when using the library services.....	72
4.6.7 Problems encountered by doctoral students when using the library resources.....	73
4.6.8 The information needs of doctoral students compared to other users.....	73
4.6.9 Doctoral students ability to use library resources compared to other students.....	74
4.6.10 The ability of the doctoral students to use the library's resources.....	74
4.6.11 The challenges doctoral students faced compared to other students.....	75
4.6.12 Doctoral students requesting help from subject librarians.....	75
4.6.13 Doctoral students making appointments before coming for assistance.....	76
4.6.14 Library resources doctoral students used the most.....	77
4.6.15 Reasons why these resources were used the most by doctoral students.....	77
4.6.16 Improvements the library can make to the services it offers doctoral students.....	77
4.6.17 Summary of subject librarians interview results.....	78
4.7 Summary of the chapter.....	78
Chapter 5: Discussion of the results.....	79
5.0 Introduction.....	79
5.1 Revisiting the key research questions of the study.....	79
5.2 To what extent did doctoral students of the College of Humanities, Pietermaritzburg Campus use library resources?	79
5.3 What types of library resources did doctoral students of the College of Humanities, Pietermaritzburg Campus use?	80
5.4 What were the factors that influenced doctoral students use of library resources?	81
5.5 How competent were doctoral students in using the different library resources?	82
5.6 What challenges did doctoral students face in their use of library resources?.....	83
5.7 What suggestions did doctoral students have on how to improve on the services provided by the library?	84
5.8 Summary of the chapter.....	85
Chapter 6 Conclusion and recommendations	86
6.0 Introduction.....	86

6.1 Summary of the study.....	86
6.2 Summary of the findings of the study.....	87
6.3 Conclusion.....	89
6.4 Recommendations	90
6.5 Suggestions for further research.....	90
List of works cited.....	92
Appendices	99
Appendix 1: Cover letter	99
Appendix 2: Informed consent form for survey participation.....	101
Appendix 3: Doctoral students questionnaire.....	102
Appendix 4: Subject librarians interview schedule.....	110

Chapter 1

Introduction to the study

1.0 Introduction

Libraries and their resources are critical for doctoral studies. Although libraries came into existence before universities and other higher educational institutions and research centres, they have come to be closely identified with universities. The various categories of individuals in a university community – students, academics (faculty), administration, and management depend on the library and its resources to different extents for the performance of their various functions. Libraries are universally important in all literate societies and render the same essential service of providing information for users, statesmen or intellectuals alike. All through history, libraries have retained their essential character. In the words of Wedgeworth (1993:509):

Libraries have existed since the dawn of history, and their initial functions of acquiring materials, arranging them, facilitating their circulation, and providing some aids to those using them are still represented among the organisational activities of present day libraries.

The libraries associated with universities and other higher educational institutions are called academic libraries. These are:

Complex institutions with multiple roles and a host of related operations and services developed over the years, and yet their fundamental purpose has remained the same: to provide access to trustworthy, authoritative knowledge (Campbell 2006:1).

While the quality of an academic library may be measured by reference to the size of its “holdings and various counts of its use” (Nitecki 1996:181); the benefit users derive from libraries depends on their knowledge of the library and its available resources as well as their skillfulness or competence in accessing and retrieving information from the library’s resource base.

Based on this introduction the researcher investigated the use of library resources by doctoral students of the University of KwaZulu-Natal, College of Humanities, Pietermaritzburg Campus. The reason the study was important is that doctoral students are researchers who are in a position to add to the existing body of knowledge.

This chapter provides the background of the study, rationale for the study, the research problem, and key questions of the study. It also discusses broader issues to be investigated, definitions of key terms, the conceptual framework, delimitations and limitations, overview of the study and summary of the chapter.

1.1 Background of the study

The University of KwaZulu-Natal, Pietermaritzburg Campus, is located in the suburb of Scottsville. In 2004, Natal University, as it was then called, merged with the University of Durban-Westville and became known as the University of KwaZulu-Natal. The University of Natal was founded in 1910 as the Natal University College while the University of Durban-Westville came into being as the University College for Indians on Salisbury Island in Durban Bay. Natal University College was granted University status in 1949, while the University of Durban-Westville achieved the same status in 1971. The merger of the two KwaZulu-Natal universities on January 1st 2004 was “in accordance with the government’s higher educational restructuring plans that would eventually see a number of higher educational institutions in South Africa reduced from 36 to 21 in number (UKZN 2012:1).

Thus the University of KwaZulu-Natal (UKZN) is a product of the new, democratic South Africa governed by a progressive constitution and driven by the need to entrench a human rights culture hitherto denied in an oppressive and hierarchical society. UKZN’s core values and goals derive from the constitution of the Republic of South Africa and from the preamble to the Higher Education Act of 1997 (as amended). The University’s vision and mission are a reflection of its underlying values and commitments. In carrying out its various activities, the university seeks to contribute to the building of a just society (UKZN 2012). Currently UKZN operates academic libraries for its various programmes on its five campuses located in two major cities, Durban and Pietermaritzburg, both in KwaZulu-Natal. Four of the campuses are in Durban and one in Pietermaritzburg. The campuses in Durban are the Edgewood Campus, Howard College Campus, Nelson R. Mandela School of Medicine, and Westville Campus (UKZN 2012). Each of these campuses has a number of libraries. But the focus of this study is the Pietermaritzburg Main Library known as the Cecil Renaud Library.

1.1.1 The University's vision and mission statement

The vision is to be the premier university of African scholarship and the mission is to be a truly South African university that is academically excellent, innovative in research, critically engaged with society and demographically representative, redressing the disadvantages, inequities and imbalances of the past (UKZN 2012:1).

1.1.2 Library mission and vision statement and strategic goals

The mission of the University of KwaZulu-Natal Library is to support teaching, learning, research and community engagement by providing a high quality, relevant, expanding and innovative library and information service (UKZN 2012:1).

1.1.3 Strategic goals of UKZN Library

One of the strategic goals of the UKZN libraries is to provide effective teaching and learning strategies for users. In order to implement this strategy, the libraries will provide assistance with research to postgraduate students, researchers and staff. Another strategic goal is to develop teaching and learning programmes for students at undergraduate and postgraduate levels and work towards having these integrated into the curriculum (UKZN 2012:2).

All categories of students are required to make adequate use of the available library resources in the libraries on the five campuses and their databases as well as those of affiliate libraries. The libraries are organized to be user friendly. UKZN libraries have subject librarians who educate users about the services the library could render to them in terms of their information needs, as well as assist users in locating appropriate material. The libraries also provide interlibrary loan services that enable users to access and use print material housed on other campuses and from non-UKZN libraries.

This research is concerned with the use of library material by doctoral students in the College of Humanities, University of KwaZulu-Natal, Pietermaritzburg Campus. The College of Humanities comprises six schools:

- The School of Applied Human Sciences;
- The School of Arts;
- The School of Built Environment and Development Studies;
- The School of Education;

- The School of Religion, Philosophy and Classics; and
- The School of Social Sciences.

The School of Built Environment and Development Studies, is based in Durban and was therefore not covered by this study.

1.1.4 Libraries of the University of KwaZulu-Natal, Pietermaritzburg (UKZNP)

The first library of the Natal University College in Pietermaritzburg started the same year as the university in 1910 but it only started functioning towards the end of 1910 according to Buchanan (2008: 63-64). At that time the library was just a collection of textbooks and journals that staff and students needed. However as time went on and in the absence of adequate library facilities for students, greater reliance was made on the Natal Museum library and also the Natal Society Library, which according to the College Calendar, possessed¹“a very fine library of literary and scientific works and admits students of the College to its full privileges at the specially reduced terms of seven shillings and six pence per annum”.

In 1912 the College had a new building in Scottsville which provided space for rudimentary library facilities which also contained all works of reference that were necessary for the various departments. In 1920, a set of College Library Regulations was published, in which the opening hours of the library were stated: from 9 am to 4 pm daily except on Saturdays and Sundays including public holidays. However in 1921, the senate body of the college appointed a “Library Committee” which held its first committee meeting at 3 pm at the university staff room on the 11th of October the same year. Automatically this date was declared by Brown as the official birthday of the UKZNP Library (Brown 1971).

According to Aitchison (1998: 17) the library of the then Natal University College, Pietermaritzburg, occupied its first separate building in 1937 and in 1965 it moved into its present building now known as the Cecil Renaud Library (CRL) of the University of KwaZulu-Natal Pietermaritzburg Campus.

¹ Natal University College. 1911. Calendar, Pietermaritzburg: [The College], p. 101.

Brown, R. A. 1971. History of the library Part 1, supplement no 8 and no 9, [Library] bulletin [Pietermaritzburg], October and November, p. 1.

In 1982 the library was computerised with the installation of a Reality mini-computer and URICA Integrated Systems (UIS) software. The Cataloguing and Information Retrieval module was the first to be implemented and in 1991 the catalogue became more accessible to the wider university community when the Online Public Access Catalogue (OPAC) module was introduced for use, both in the library and remotely by those connected to the university's network. The installation of the Ultimate 3040 computer in 1992 brought about increased disk storage space which made the development of a regional catalogue possible and a start was made on the Cataloguing Network in Pietermaritzburg (CATNIP). Large and small libraries in and near Pietermaritzburg are involved in this cooperative cataloguing project. Their holdings are reflected in the catalogue and most of them have online access to the CATNIP catalogue (Pretorius, 1995: 8 & 10).

The library of the UKZNP has basically three main libraries. Besides the Alan Paton Centre and Struggle Archives and the University Archives, there is the Law Library serving mainly the law students, while the Life Sciences Library serves the Sciences and Agricultural students and the main library which is the Cecil Renaud Library serves almost the entire College of Humanities in the University.

1.2 Rationale for the study

Analysis of library resources usage data among different classes of users in different settings has increased in recent years. This study will add to this developing body of knowledge as it focuses on the use of library resources by doctoral students of the College of Humanities, UKZN, Pietermaritzburg Campus, an area that is yet to be thoroughly researched. The library is a repository of knowledge and no addition to the existing body of knowledge can be claimed without familiarity with the state of knowledge in a discipline. The academic library is not only a storehouse of knowledge but also an information skills acquisition and enhancement centre where users are enabled to carry out information searching and use. Postgraduate studies entail much independent work on the part of the students. Postgraduate students are expected to participate in knowledge production and not only in knowledge acquisition unlike most undergraduate studies. Doctoral students are especially expected to make a contribution to new knowledge in order to be awarded the doctor of philosophy qualification. Without familiarity with the existing body of knowledge in their discipline, they cannot even decide on what is worth researching. Libraries as institutions that house

knowledge are therefore indispensable to doctoral students. Additionally, the results of this study could assist libraries in improving their services to doctoral students.

1.3 The research problem

Doctoral students are expected to have a good knowledge of and familiarity with libraries and library resources which are relevant to the successful completion of their studies. But being doctoral students may not mean they would not have challenges with the use of library resources. As Nkosi, Leach and Hoskins (2011) found in their study of knowledge and use of library resources by academic staff, even University academics, some of whom are professors, have challenges with using the resources of a library. Libraries are also developing institutions whereby new concepts and theories are formed to frame the services they provide. This study aims to establish the challenges doctoral students in the Humanities have with the use of library resources.

The study also investigated the extent and effectiveness of the doctoral students' use of library resources and the factors that determine their use of library resources. It also evaluated their knowledge of the library, its structures, operations and resources; and their skillfulness and competence in the use of library resources. The study also determined and assessed their views and opinions as to how the library can better serve their needs. The above research concerns are determined against the background of the main objective of this research which was to establish the challenges doctoral students of the College of Humanities of the UKZN Pietermaritzburg campus faced in their use of library resources.

1.4 Key questions to be asked

The main question this research attempted to address was: "What are the major challenges facing doctoral students of the College of Humanities, UKZN Pietermaritzburg campus in the use of library resources?" This broad question is broken down into the following specific questions:

1. To what extent did doctoral students of the College of Humanities, Pietermaritzburg campus use library resources?
2. What types of library resources did doctoral students of the College of Humanities, Pietermaritzburg campus use?
3. What were the factors that influenced doctoral students' use of library resources?
4. How competent were doctoral students in using the different library resources?

5. What challenges did doctoral students face in their use of library resources?
6. What suggestions did doctoral students have on how to improve on the services provided by the library?

1.5 Broader issues to be investigated

This study dealt with a number of broader issues that could impact on the effective use of library resources and which the researcher needed to take into account in carrying out the study. The key issues were information literacy, the nature of doctoral studies in the various social science disciplines and the research focus of doctoral students.

1.5.1 Information literacy (IL)

The use of library resources demands some level of information literacy on the part of potential users. It would be foolhardy to undertake postgraduate studies without information literacy skills. Information literacy refers to the ability to decide on, search for and use information required for a defined purpose. According to the University of Idaho, information literacy is:

The ability to identify what information is needed, understand how the information is organised, identify the best sources of information for a given need, locate those sources, evaluate the sources critically and share that information. It is the knowledge of commonly used research techniques (University of Idaho 2012: What is information literacy?).

Where such literacy is lacking, it would have to be acquired because a lack of information literacy could seriously hinder research efforts. Doctoral students would have to find, use and be able to evaluate the information they have sourced accurately and therefore need to be information literate. Although information literacy is important, it was not a focus for the current study.

1.5.2 Nature of doctoral studies

The nature of doctoral studies derives partly from the nature of the doctorate degree. According to Philip and Pugh (2005:20-21):

a doctor's degree historically was a licence to teach – meaning to teach in a university as a member of a faculty. Nowadays this does not mean that becoming a lecturer is the only reason for taking a doctorate, since the degree has much

wider career connotations outside academia and many of those with doctorates do not have academic teaching posts. The concept stems, though, from the need for a faculty member to be an authority, in full command of the subject right up to the boundaries of current knowledge, and able to extend them. As the highest degree that can be awarded, it proclaims that the recipient is worthy of being listened to as an equal by the appropriate university faculty.

Doctoral studies require familiarity with the existing body of knowledge in the student's area of interest and those engaged in it are expected to be self-accounting when it comes to finding out things they ought to know. Doctoral students have the responsibility for determining what is required, as well as for carrying it out. According to Philips and Pugh (2005:2), if a particular topic or theory for the students' work is needed, they cannot blame anyone but themselves for not knowing they needed such a topic or theory. While they have supervisors and other academics to help them in certain areas, doctoral students work largely independently. They must therefore be skilled in information literacy.

1.5.2.1 Research focus of doctoral students

Doctoral students of the College of Humanities have a research focus area in which they make a contribution to knowledge in order to be awarded the doctorate degree. As the Humanities are diverse, so is the research focus of doctoral students and therefore it is not possible to comment on the research focus of all doctoral students.

1.6 Definition of terms

The following definitions will be used in the study.

1.6.1 Doctoral students (DS)

For the purpose of this study, doctoral students refer to students who are registered for the doctor of philosophy degree (PhD) or equivalent qualification in the College of Humanities, UKZN, Pietermaritzburg campus, at the commencement of the data collection phase for this study.

1.6.2 Library use (LU)

The Merriam-Webster Online Dictionary (2012) defines ‘use’ in its noun form as “the act or practice of employing something”, “a method or manner of employing or applying something”, “a particular service or end”, and “the quality of being suitable for employment” among other meanings. Dictionary.com (2012: use) describes the noun form of ‘use’ as “the act of employing, using, or putting into service”, “the state of being employed” “a way of being employed or used; a purpose for which something is used”. ‘Use’ therefore may refer to employment, purpose or function, method of application of something. This is perhaps why Abbott (1989:15) stated that the term “use” seems to be a complex term that has a wide range of meanings and is very difficult to define.

Aitchison (1998:7) used the term “library use” to refer to “the act of entering a library and engaging in activities for the purpose of locating and obtaining literature”. For the purpose of this study the term ‘library use’ refers to entering into a library, locating, obtaining and using the resources in the library as well as using the resources of the library online. Therefore ‘library use’ refers to entering both the physical and virtual library space to locate, obtain and employ the resources of the library for research.

1.7 Principal theories and conceptual framework on which the study is based

Historically a theory according to Selltiz, Wrightsman, and Cook (1976:16), is “a set of concepts plus the interrelationships that are assumed to exist among those concepts”. Theories, models and conceptual frameworks have been developed to describe, explain, analyze and generally make meaning of information seeking behaviour in general and library user behaviour in particular. (Kuhlthau, Turock, George, and Belvin 1990: 9) identify the personal construct theory (PCT) and Kuhlthau’s model of the information search process (ISP) as two major efforts at making meaning of the behaviour of information seekers that have been applied to library users. Both PCT and ISP approach the use of library resources from the user’s perspective, viewing the user as being engaged in a process of construction.

Personal construct theory (PCT) focuses on “the user’s experience from within the search process” and describes the process of “construct building as evolving through a series of phases which involve the emotions as well as the intellect” Kuhlthau, Turock, George, and Belvin (1990: 9). Personal construct theory (PCT) assumes that the cognitive and affective experience of information

seeking influences, and is “influenced by the user’s decisions and actions as the search proceeds” Kuhlthau, Turock, George, and Belvin (1990: 6), and therefore “users’ expectations of the system and the search process may influence the way they approach information seeking, and therefore affect their intellectual access to information” Kuhlthau, Turock, George, and Belvin (1990: 8).

Kuhlthau’s model of the information search process (ISP) is a model that correlates with the user’s thoughts, feelings, and search behaviour. The various stages in this theory are: initiation, selection, exploration, formulation, collection and presentation Kuhlthau, Turock, George, and Belvin (1990: 9; Kuhlthau (2004: 44). The ISP model which was developed from the common pattern that emerged within the context of the constructivist theory of learning, has roots in Psychology and Information Science (Kuhlthau 1989). However, the ISP is an improvement on the PCT and will be largely used as the conceptual framework for this study.

In their use of library resources, the doctoral students of the UKZN, College of Humanities, Pietermaritzburg Campus, were behaving in line with Kuhlthau’s stages (2004:44-50) when conducting their research. These stages as listed below are as follows:

- **Stage one is task initiation:** is when a person first recognises that information will be needed to complete the research, when for example doctoral students first receive a letter of admission explaining what is expected of them in terms of their research proposal.
- **Stage two is topic selection:** at this stage the task is to identify and select a research topic to be investigated and the approach to be pursued. At this stage, doctoral students set their minds on selecting a topic to research during which they consult with their supervisor who is an expert in the field.
- **Stage three is pre-focus exploration:** this stage involves exploring information on the said topic in order to gain focus on the research. For many students, this is the most difficult stage in the process such that, as they find many different information sources on their topics they become somewhat confused by the inconsistency and incompatibility they come across.
- **Stage four is focus formulation:** at this stage, an understandable focus is formed based on the numerous information sources encountered in their search process. This now enables them to move on in their research study since the topic becomes more personalised and researchable, and confidence is increased to carry on the study. This focus also gives them the ability to use library resources effectively.

- **Stage five is information collection:** this is the stage when there is an interaction between the user and the information system which functions effectively and efficiently. During this stage the task is to gather information pertaining to the focused topic. The user at this point, with a clear sense of direction, may interact with subject librarians to assist in collecting information relevant to their topics. This is also applicable to doctoral students as they source relevant information relating to their doctoral study.
- **Stage six is search closure:** this stage brings the search process to an end, and the beginning of the research proper in terms of putting all the findings to paper. According to Kuhlthau, there is a sense of satisfaction if the research has gone well or disappointment if it has not. For doctoral students this would constitute the final draft of their theses.

All the six stages stated above are equally important; however the stage that is most important for this study is stage five which is the “information collection” stage. According to Kuhlthau, (1994:104) during this stage:

the type of information sought shifts from that which is relevant to the general topic, to that which is pertinent to the focus and the task of collecting information must be approached systematically where students can learn methods of searching a library collection to gather information on their focus from a variety of sources.

The conceptual frame-work for this study is fully embedded in stage five as the researcher’s focus was on the use of library resources by doctoral students of the UKZN, of the College of Humanities, Pietermaritzburg campus.

1.8 Delimitations and limitations

This study was on the use of library resources by doctoral students of the UKZN, College of Humanities, Pietermaritzburg campus, although there were doctoral students of the College of Agriculture, Engineering and Science and the College of Law and Management on the same campus, this study covered only doctoral students of the College of Humanities. As mentioned earlier, out of the six schools in the College of Humanities, the School of Built Environment and Development Studies, is located in Durban on the Howard College Campus and was therefore out of the geographical study area. These delimitations of scope were informed by the fact that this was a coursework master's study.

1.8.1 Overview of the chapter

The overview of subsequent chapters is as follows: Chapter Two will discuss the literature review. Chapter Three will explain the research methodology adopted. Chapter Four will present the research results for the study, while Chapter Five will discuss the results of the research and Chapter Six will state the conclusion of the study and present recommendations as well. Chapter Six is followed by a list of works cited and appendices.

1.9 Summary of the chapter

This chapter introduced the study and provided a background to the study. The rationale of the study was followed by the research problem, and an outline of the key research questions for the study. Broader issues to be investigated, the conceptual framework and the delimitations and limitations of the study were also discussed.

Chapter 2

Literature review

2.0 Introduction

This chapter covers literature that is relevant to the study. In undertaking the literature review the researcher will first provide a definition of a literature review. This is followed by the importance of a literature review in a study, the role of academic libraries in the provision of library resources, the purpose of academic libraries in institutions of higher learning, the types of library resources in an academic library, information needs of doctoral students, library and information skills and competencies that doctoral students are expected to have and the information literacy of doctoral students. Thereafter the review of related studies will be presented from international studies followed by African and finally South African studies that are relevant or similar to the current research topic.

Prytherch (2000: 458): defines a literature review:

... as a survey of progress in a particular aspect of a subject area over a given period of one, five or ten years; it may range from a bibliographical or mere list of references, to a general critical review of original publications on the subject covered.

These publications include print books, e-books, print journal articles and e-journal articles, magazines and newspaper reports. More so, there are grey literatures such as theses and dissertations. These are sources that may provide information related to research work, although they have not necessarily been produced for a specific topic being researched.

Thody (2006:89) argues that the word “literature” includes all secondary sources for research, such as printed texts, film, audio tape, presentations and lectures, paintings, handwritten diaries, archival sources, legislation, websites, artifacts, CDs, DVDs, and theses. But in the case of this study, secondary sources such as films and audio tapes will not be included as sources for the review. However printed and online texts of journal articles and books, theses and dissertations will be covered as sources for the review.

Gastel (2012) stated that the essence of a literature review is:

- To gain familiarity with previous work in one's area of scholarly and professional interest;
- To gain experience and skill in finding, analyzing, evaluating, and integrating information from others' research;
- To identify important unanswered questions on which to base dissertation topics;
- To learn about approaches and methods to consider using in one's dissertation research;
- To be able to put one's own research in context when writing one's dissertation;
- To see examples of good scholarly/academic writing that can be models to follow;
- To set the context for the description of your dissertation research;
- To help readers understand your dissertation research;
- To help show why your dissertation research is important, and
- To lay the groundwork for presenting the methods of your research, findings and interpretation of your findings.

From the above points the essence of a literature review is to show that the review of related literature gives room for a more in-depth understanding, wisdom and knowledge. In addition the review shows the gaps and the loopholes of other researchers in the subject area or discipline, so that the current researcher can improve on previous studies. This review of related literature helps the researcher to be more focused and to contribute to new knowledge in the area. Without a literature review, the research work is incomplete since there is no existing knowledge to build on.

2.1 The role of the academic library in the provision of library resources

The role of the academic library in providing resources to users is discussed as follows:

According to Wedgeworth (1993:509):

Libraries have existed since the dawn of history, and their initial functions of acquiring materials, arranging them, facilitating their circulation, and providing some aids to those using them are still represented among the organisational activities of present day libraries.

Haynes (1996: 218) states that:

The academic library is the principal unit that supports all academic programs; the one location on campus where all disciplines are

represented, organised, and integrated; and a fertile environment within which to explore the interdisciplinary aspects of knowledge.

The libraries associated with universities and other higher education institutions are called academic libraries. These are:

Complex institutions with multiple roles and a host of related operations and services developed over the years, and yet their fundamental purpose has remained the same: to provide access to trustworthy, authoritative knowledge (Campbell 2006: 1).

While the quality of an academic library may be measured by reference to the size of its “holdings and various counts of its use” (Nitecki, 1996: 181); the benefit users derive from libraries depends on their knowledge of the library and its available resources as well as their skillfulness or competence in accessing and retrieving information from the library’s resource base.

Feather and Sturges (2003: 3-4) argue that:

Academic libraries are libraries that are attached to academic institutions above the secondary or high school level, serving the teaching and research needs of students and staff. Basically academic libraries have a primary obligation to meet the information needs of the members of their institution, though it serves the general public as secondary motive.

In all it is very evident from the different scholars’ point of view above that the most important role or service of the academic library in any institution of higher learning is to offer various training programmes which will enable users to source materials in the library with or without the assistance of subject librarians.

2.2 Purposes of academic libraries in institutions of higher learning

According to Feather and Sturges (2003: 3-4) academic libraries serve the following purposes in institutions of higher learning:

- They provide for the educational needs of students, both those arising directly from the curriculum and those of a general nature; and
- They support the teaching staff in their need for up-to-date material required for their teaching role.

In most universities, a third purpose can be added:

- They provide for research (where the institution undertakes research) both higher-degree work and the research activity of academic staff.

In addition Feather and Sturges (2003: 3-4) state that in terms of priorities the students' needs are paramount, and this aspect of work predominates in most academic libraries; but depending on the mission of the institution the support of research is also of great importance.

2.3 Library resources in an academic library

According to the American Library Association (2012), the following resources listed below are likely to be found in an academic library. The commonly available resources include: books, CDs (compact discs), DVDs (digital versatile/video discs), journals, magazines, newspapers, maps, movies, microfilms, computers, printers, photocopiers, scanners, internet access, subject or reference librarians, study rooms, programmes or workshops, music, and so forth. Many of the above information resources are available in both print and electronic format. Some of these resources listed above will be briefly explained.

2.3.1 Books

Academic libraries usually carry various categories of books such as print and e-books, fiction, nonfiction and reference. There are also rare books, manuscripts and special collections that may date back to earlier centuries. Rare books provide historical knowledge or information on the past.

2.3.2 Journals

Journals are part of an academic library. Journals are regular periodic publications that contain articles on mostly current research. They are usually devoted to specific disciplines or professions, and are often in the form of a magazine. Scholarly journals are also referred to as peer-reviewed journals.

2.3.3 Computers/printers/photocopiers/scanners

All of these materials could be required by users of an academic library, for example, computers that are connected to the internet can be used to search for information online while the printers, photocopiers and scanners can be used to produce online information for easy reading, study, and for

users who cannot afford the hardware in the comfort of their homes. However, access to such hardware devices is usually for duly registered students of the institution.

2.3.4 Internet

The internet is also another valuable information resource in an academic library which facilitates access to teaching, learning and research information. Another reason is that as a resource, the internet facilitates the finding of information for studies and research projects. Moreover, both students and staff who cannot afford internet access at home can easily use the institution's internet on campus for study and research purposes.

2.3.5 Subject or Reference librarians

Subject or Reference librarians do not only have knowledge of the library in which they work but they also have knowledge of different sources of information and where to locate relevant information. They use their knowledge to assist users of the library who approach them for help. They also train users to use the library and find information independently by providing users with information literacy skills.

Academic libraries, like the UKZNP Library, offer a series of workshops on how to find material online. This is done by the subject librarians at the beginning of the semesters to students and staff alike, so they can use the various library resources effectively and efficiently without assistance. The sole reason for these workshops is for the users to have a comprehensive understanding of where the resources are, and how to source them with ease and to use them properly.

2.3.6 Study rooms

Many academic libraries like the UKZNP Library have study rooms which are used by students and staff to support individual study, research and group work. The UKZNP Library has three study rooms on the lower ground floor. All of these resources in an academic library help to facilitate teaching, learning and research for both students and staff.

2.3.7 Virtual library

A virtual library is a library that provides access to collections of full-text e-books, journals and databases of various sources and publishers which can be accessed remotely by library users from internet connected laptops, computers, and other portable devices.

2.4 Information

Information is vital within the university environment and outside its environment, and so it is important to know what the term information means.

According to Feather and Sturges (2003: 244) information is:

data that has been processed into a meaningful form. Seen in this way, information is an assemblage of data in a comprehensible form capable of communication and use; the essence of it is that a meaning has been attached to the raw facts.

While for Prytherch (2000: 370) information is defined as:

An assemblage of data in a comprehensible form capable of communication; this may range from content in any format – written or printed on paper, stored on electronic databases, collected on the internet etc.

The *Cambridge Advanced Learner's Dictionary* (2008: 740) defines information as “facts about situations, persons and events”. While for Keenan (1996: 8) information is defined as:

something that is learnt, facts that are gathered, or a measure of the content of a message... (Information is) a sensible statement, opinion, fact, concept or idea, or an association of statements, opinions or ideas.

Therefore information is required for meaningful conduct in every social or relational context. Newcomers to a community require information about the rules of conduct and proper ways of doing things to be able to fit in, and so do doctoral students at the University of KwaZulu-Natal, College of Humanities, Pietermaritzburg campus, in order to carry out their research study.

2.4.1 Information seeking

In terms of defining information seeking, Case, (2002: 5) states that “information seeking is a conscious effort to acquire information in response to a need or gap in one’s knowledge”. Therefore information seeking is part of information behaviour.

2.4.2 Information seeking behaviour

According to Palsdottir (2010: 226) information seeking behaviour refers to the behaviour of individuals who “experience a lack of knowledge and act on this feeling by seeking information ... (that will) satisfy some goal”.

2.4.3 Information behaviour

Case (2002:5) defines information behaviour as:

Encompassing information seeking as well as the totality of other unintentional or passive behaviours (such as glimpsing or encountering information), as well as purposive behaviours that do not involve seeking, such as actively avoiding information.

Stilwell (2010: 3) defines information behaviour as follows:

Information behaviour is a broad term that covers information needs, information seeking behaviour, information searching and information use.

At this point, it is very clear that information is vital in all spheres of life. That is why, every now and then, there is some need for information and when the information is not forthcoming, there is the tendency to seek information to solve the problem that has arisen.

2.4.4 Information needs of doctoral students

Doctoral students have different information needs as a result of their areas of research interest. When a student or an individual lacks the information required to take appropriate action about a situation and takes measures to fill such a gap, an information need can be said to exist. An information need exists whenever there is a consciousness that one lacks the facts upon which to act and takes measures to obtain the relevant facts.

Chowdhury and Chowdhury (2011: 26) define an information need as follows:

Information [need] is as a result of some unresolved problem(s). It may arise when individuals recognize that their current state or knowledge is insufficient to cope with the task in hand, to resolve conflicts in a subject area, or to fill a void in some area of knowledge. However an information need is not a primary need, but a secondary need that arises out of another need.

However, there are some points to recognize in the information needs of different categories of users, be it undergraduate or postgraduate students. The following are the points to take note of:

- An information need is a relative concept. It depends on several factors and does not remain constant: it changes in accordance with institutional or personal context;
- Information needs change over a period of time;
- Information needs vary from person to person, job to job, subject to subject, and so forth;
- Students or individuals' information needs are largely dependent on the environment;
- Information needs often remain unexpressed or poorly expressed; and
- Information needs often change on receipt of some information (Chowdhury and Chowdhury, 2011: 28-29).

Ikojo-Odongo and Mostert (2006: 147) view an information need as a drive which propels individuals of all classes into information seeking in diverse ways. An information need always arises when an individual, business firm, or some other organization sets out to achieve a goal and discovers that there is something that is incomplete, which then requires them to seek information on how to achieve those set goals.

Backhouse (2009: 90-91) states that the nature of doctoral studies in some parts of the world, such as in Europe, is seen as training in research or training for research, while in America it is known as research training and in South Africa it is seen as a study that generates scholarly knowledge which is in keeping with the higher qualification framework of the Department of Education (DoE). The DoE (2007: 29) states that the graduate must “demonstrate high-level research capability and make a significant and original academic contribution at the frontiers of a discipline or field” and “must be able to supervise and evaluate the research of others in the area of specialization concerned”.

Therefore the DoE in South Africa views doctoral students as individuals that should be trained for an academic career and are able to show high levels of research capability and must be skilled with all the library resources as they undertake research towards their studies. Doctoral students are also unique in their own way in terms of the different research they carry out which involves their use of library resources. Doctoral students are seen as scholars that add to the existing body of knowledge with their research.

2.4.5 Library and information skills and competencies of doctoral students

It is generally accepted that when doctoral students search for information related to academic needs, they are expected to have acquired the library knowledge and skills to do so without any assistance. Doctoral students also require literature searching skills in order to locate material that will assist them in their research work. There are many models that define the information seeking or searching process, including Isaac (2002) and Kuhlthau's (2004) models. Isaac (2002: 28) sees "information skill as technical and critical thinking skills vital for students to cope successfully within the information environment in which they find themselves". He went further to state that information skills involve topic analysis, information seeking, storage, evaluation and presentation.

In addition, Isaac (2002: 28) states that information skills are divided into three different stages which are:

- Planning stage: this is the stage where the task at hand is sorted out and the decision is made or the appropriate strategy to start the search;
- Retrieval stage: this is the stage where the information sources are located and the information is selected. At this point one needs to have information gathering skills in order to retrieve the needed information; and
- Organising stage: at this stage one needs to evaluate and synthesise information, then present and evaluate the task.

The above stages are similar to Kuhlthau's (ISP) information search process model which incorporates three realms: the affective which is the feeling, the cognitive which is the thoughts and the physical which is the action. According to Kuhlthau (2004: 44) all three are needed by the doctoral students of the College of Humanities in their information searching behaviour. Kuhlthau's

model was elaborated upon in Chapter one which formed the conceptual framework for the current study.

2.4.6 Information literacy (IL)

The use of library resources demands a level of information literacy on the part of potential users. It would be foolhardy to undertake postgraduate studies without information literacy skills. Information literacy refers to the ability to decide on search for and use information required for a defined purpose. Information literacy forms the basis for lifelong learning in any individual. Information literacy is common to all disciplines, to all learning environments and to all levels of education. It also enables learners to master content and extend their investigations, become more self-directed and assume greater control over their own learning.

Darch and Underwood (1999) in Nsanzya (2003: 16) define information literacy as a set of abilities requiring individuals to “recognise when information is needed and have the ability to locate, evaluate, and use effectively the needed information”. It consists, in part, of a set of transferable skills that allow users to identify their information problems and needs, access required information irrespective of source or channel and use and critically evaluate the information. It also entails an understanding of a domain of knowledge, to the extent that an information user is able to evaluate the importance of a piece of information in relation to a problem. These abilities will improve the quality of life and also lead to a greater contribution to knowledge production and economic development. The discussion that now follows relates to the empirical studies that are similar to the current study.

2.5 Related studies

A keyword search indicates the existence of literature on various aspects of the library and the use of its resources by students in different parts of the world. Internationally, studies have been done on the use of e-resources by doctoral research scholars. In this regard, Swain (2010) did a study on students’ keenness to use e-resources, and Chirra and Madhusudhan (2009) researched the use of electronic journals by doctoral research scholars at an Indian university. There are also a number of theses on the use of particular types of library resources by different student categories (Hadebe 2010; Aitchison 1998). To this extent, there are related studies on which the researcher expects to

build knowledge in the area. The review indicated that not much had been done on UKZN doctoral students' use of a broad spectrum of library resources.

Given the objective of the study the researcher focused on the specific proposed topic which was narrow enough in terms of the study population and sufficiently broad in covering the full range of library resources to allow for comparison of usage across resources. The discussion that follows covers firstly the international studies followed by the related studies conducted at African and South African universities.

2.5.1 Previous studies done internationally

Kimberly and Orr (2003) conducted a survey on the trends in distant student use of electronic resources at the University of Maryland University College (UMUC). The survey was conducted for three purposes which were: (a) to identify student awareness and use of, and perceived needs for, physical libraries, delivery of library materials, instructional and promotional services, resources and technologies; (b) to assess the extent of student use of electronic resources; and (c) to compare findings, where possible, with the 1996 needs assessment conducted by the office of library services. The instrument for data collection was a previous survey instrument that was developed by the office of library services in 1989 and 1996, which was later reviewed and revised in 2001. The study found that the use of the physical library facility was significantly less than it was five years ago and that undergraduates used it more than graduate students. Also, since the late 1990s, the use of a physical library at universities has decreased with 73% of students preferring internet resources more than face-to-face reference queries. The study recommended that: (a) academic libraries in general need to determine how patterns of internet use affect the make up of the physical libraries; (b) the library must continue to enhance its programme to educate students about using the free web effectively and encourage greater use of the library's database.

Kuh and Gonyea (2003) did an exploratory study on the role of the academic library in promoting student engagement in learning at Indiana University Bloomington (United States). The study examined the nature and value of undergraduate students' experiences with the academic library. The aim was to discover the unique contributions of library experiences to the quality of effort students expend in other educationally purposeful activities, the gains they report making during college, and their overall satisfaction with the college experience. The instrument used for data

collection was the College Student Experiences Questionnaire (CSEQ) in order to assess the quality of effort students devoted to educationally purposeful activities. The study found that the libraries played an important role in helping the institution achieve its academic mission by providing a very valuable service for a subset of undergraduate students that are increasing in number.

Griffiths and Peter (2005) undertook a study in London on students' searching behaviour and the web use of academic resources and Google. The study focused on student web searching behaviour. A quality attributes approach was used to collect data and the respondents were recruited via Manchester Metropolitan University's Student Union Job Shop. A total of 27 students from a wide course range took part in the study. One-third of the students were from the Department of Information and Communication while two-thirds of the respondents studied in some other disciplines and were at various stages of their studies. The study found some important and interesting issues which included: (a) students preferred to locate information or resources via a search engine above all other options, and Google was the search engine of choice; (b) students use of search engines now influenced their perception and expectations of other resources; and (c) some students preferred particular search engines, though the reasons they gave for their preferences were common across all search engines. Some users indicated that if their first search strategy did not work, they had a string of similar search engines to use as a backup: examples were Lycos, Google, Yahoo, Alta Vista, Excite, Northern Light or Goto.com, and Lycos.

Korobili, Tilikidou, and Delistavrou (2006) researched the "factors affecting the use of library resources by faculty members" in a higher educational institute in Thessaloniki, Greece. Although not related to doctoral students who are researchers as well, their study used a census survey to collect data by means of a structured questionnaire in order to examine the frequency at which faculty members used the e-sources. The study found that the great majority of the faculty of the Technological Educational Institute of Thessaloniki used printed sources more than e-sources, but they also used e-sources quite frequently. Books, websites and printed journals were also mostly used.

Chirra and Madhusudhan (2009) did a study on the use of electronic journals by doctoral research scholars of Goa University, India. The method by which they collect their data was by survey with a structured questionnaire with open-ended and closed questions. They also used a stratified accidental

random sampling method in collecting data. The study found that 98% of the students used e-journals for research, while some used them for current awareness and others to publish articles and books or to prepare for the University Grants Commission (UGC) national eligibility test. At the end of the study, the researchers had some recommendations to make based on their findings which included amongst others: (a) high speed bandwidth is needed exclusively for facilitating access to e-journals, and (b) the library, computer center and departments needed to increase access to computers and printers.

Swain (2010) investigated “students’ keenness on the use of e-resources”. The purpose of the study was to focus on the keenness of students of the Business Schools of Orissa (India) on the use of e-resources and to evaluate their level of usage of the electronic resources. In order to do this, the study used a structured questionnaire to collect data and SPSS was used to analyze the data. At the end, the study found that students had a keen interest in all e-resources, such as e-books, e-newspapers, e-reports and e-articles. The students showed the least interest in e-theses and e-dissertations usage. The study also found that most of the students were aware of the EBSCO and Emerald Management Xtra databases.

Ge (2010) investigated the information-seeking behaviour of academic researchers in the digital age. The study was conducted at Tennessee State University (TSU) in Nashville. Thirty active Social Sciences and Humanities faculty, as well as doctoral students were interviewed about their use of electronic information resources for research purposes. The instrument by which the researcher collected his data was adapted from the qualitative approach to information seeking behaviour. The study found that electronic information resources played an essential role in these researchers’ information-seeking pursuits. Among the eight types of internet information technologies rated, the web, databases, and e-journals were rated first, second, and third in importance, followed by the online catalogues and e-mails. Social Science researchers used electronic information resources more often than Humanities researchers. The doctoral students also had a high rate of usage of electronic resources.

White and Stone (2010) undertook a study on maximizing the use of library resources at the University of Huddersfield. The study focused on low or non-use of library resources and between library use and final degree results. The researchers used an indicator method to assess use of library

resources which included: (a) access to e-resources (using logins to MetaLib² as a measure); (b) book loans (using statistics from the Horizon Library Management System; and (c) access to the library (using gate entry statistics from a sentry). The findings showed that there appeared to be a strong correlation between library usage and grades (1st class, 2nd class upper, 2nd class lower and 3rd class), though figures for MetaLib usage were not complete for the cohorts and the number of visits to the library was also not recorded. In all, the study showed that book usage is still important for achieving a higher class pass at university than using e-resources.

Du and Evans (2011) carried out a study on academic library services' support for research information seeking. The aim of the study was to investigate how academic users utilize the academic library services when seeking research information, which includes awareness of library services' provisions. It also examined how academic users perceive the role and the value of university library academic services in support of research. The study used ten doctoral students, seven males and three females and four academic librarians. Semi-structured interviews, questionnaires and face-to-face discussion methods were used as instruments for data collection. The study established reasons why the respondents used the physical academic library service. These reasons were: (a) to find and return books, videos and other materials; (b) interlibrary loans and document delivery was the most used service at 70%, and (c) workshops on database searching for research and strategies for searching databases was another service that was known and welcomed by respondents. The reasons for not using the library were: (a) the respondents had confidence in obtaining information themselves; (b) the respondents were not sure about the value of librarians in assisting them with research at the library; (c) they had no idea about a specific service provided by the library; (d) it was a waste of time to attend workshops; and (e) they had difficulty in using the library databases.

Gessner, Jaggars, Rutner and Tancheva (2011) did an ethnographic study on supporting Humanities doctoral students. The study was a collaborative project between Cornell University Library and Columbia University Libraries. The aim of the study was to examine whether doctoral students in the Humanities took longer to complete their programme and dropped out at a higher rate than students in the Sciences and Social sciences. The study examined the age and gender, the time in

² MetaLib is a library portal providing end users with an easy and personalized interface which is a Multi-Database Search (search simultaneously) for information in a variety of electronic resources, such as catalogues, reference databases, digital repositories or subject-based web gateways.

doctoral programme, satisfaction with their academic programmes and library use. The researchers used questionnaires, interviews and focus groups to collect data. The study findings included the following: (a) all participants (researchers) use the physical library at least monthly, with daily visits more common than weekly or monthly visits; (b) 24 participants used the library daily and spent 2-6 hours there, while 14 participants used the library weekly and spent less than an hour, and one participant used the library less than weekly and the hours spent were not indicated; (c) generally the time spent in the library by the participants was used to read and conduct research using the library resources, and browsing the library collections; (d) there was no typical Humanities doctoral student, but rather all doctoral students shared certain institutional and library-related concerns. Students placed more emphasis on space for individual study as well as group activities. Also important was support from communities in promoting their academic success and emotional well-being. Finally, funding was the single greatest factor affecting degree completion in the required time.

2.5.2 Previous studies done in African and South African universities

Several studies have been done on the use of library resources in institutions of higher learning at African and South African institutions. The researcher looked at previous studies done at UKZN as well those that were related to the current study.

Aitchison (1998) did a study on access to books and journal articles by postgraduate students on a course-work master's programme in Information Studies at the University of Natal³, Pietermaritzburg. Using a descriptive method to collect her data, the researcher discovered that, part-time postgraduate masters students of the said discipline were not able to access books and journal articles effectively because of having to travel a far distance to the library.

Nsanzya (2003) did a study which investigated the use of electronic library information resources for information searching and retrieval among academic staff at the Edgewood Campus of the then University of Natal. The purpose of the study was to investigate the use of electronic library information resources and to examine the information communication technology (ICT) skills among the academic staff. Self-administered questionnaires were used as the main instrument in

³ The University of KwaZulu-Natal was founded on the first of January 2004 as a result of the merger between the University of Durban Westville and University of Natal.

collecting data for the study and an interview was conducted with the head of the Edminson Branch Library located on the Edgewood campus. The study found that the most used electronic resource was the internet, followed by the OPAC (69%), while some academic staff used the online databases. Only 7% used both indexes/abstracts and the interlibrary loan service. The study also found that there was evidence of various ICT skills lacking amongst the staff in terms of usage of (a) e-mail, FTP (File Transfer Protocol), Telnet, WWW (World Wide Web); (b) there was also lack of knowledge about the application of the resources; (c) a lack of knowledge about what resources were available in the library; and (d) a lack of training on how to access and use the resources. One of the recommendations of the study was to have an online “guided tour”, workshops or classes, and meetings between subject librarians and departments to discuss new discipline-specific resources.

Oyewusi and Oyeboade (2009) carried out an empirical study of accessibility and use of library resources by undergraduates in a Nigerian State University of Technology. The study was mainly for students in their 2nd to 5th year of study. Structured questionnaires were used to collect data randomly. The study found that 76.8% of the undergraduate students used the library for study and reading, while 7.9% used it for research, 4.3% used the library when they had to borrow books, 7.4% and 1.8% slept and socialised in the library and 1.8% also used the library for entertainment and leisure. The study also found that library resources did satisfy the research needs of the students and the library was important for academic work because of the available resources that could be used. The study recommended that Nigerian university administrators and decision-makers use the results of the evaluations to improve the effectiveness of library resources so that undergraduates, postgraduates and faculty members can be better served by the library.

Ozoemelem (2009) conducted a study on the use of electronic resources by postgraduate students of the Department of Library and Information Science of Delta State University, Abraka, Nigeria. The study population was Masters of Science (MSc) and Doctor of Philosophy (PhD) students of the Department of Library and Information Science. A descriptive survey method was used for the study and questionnaires were used to collect data from the respondents. The findings were as follows: (a) there was a low level of skillfulness in the use of ICTs among postgraduate students of the Department; (b) the internet via a cybercafé was the major facility used to access electronic resources by postgraduate students of the Department; (c) there was a low level of electronic resource use amongst postgraduate students of the Department. The study also provided some

recommendations which included (a) government should equip library schools with the enabling infrastructure such as adequate power supply and effective internet connectivity that could encourage the usage of ICTs by students; and (b) library schools in Delta State should be staffed with more technical staff to impart ICT skills to students.

Soyizwapi and Hoskins (2009) undertook a similar study on the use of electronic databases by postgraduate students. The purpose of the study was to investigate the use of electronic databases by postgraduate students in the Faculty of Science and Agriculture at the University of KwaZulu-Natal, Pietermaritzburg. The method used in collecting data was the survey method and the instrument used was a self-administered questionnaire. The study found that most postgraduate students used the electronic databases. Two-thirds used the OPAC (Online Public Access Catalogue), CD-ROM (Compact Disc Read Only Memory) and online databases while some students also used other sources to find information. The study also found that students reported different patterns of use and encountered various problems in their use of the electronic databases. Improved service delivery and training of staff and students in the use of the library and its resources were highlighted. The study also made recommendations which included the training of staff and students for the effective use of the online databases.

Likewise, Hadebe (2010) also did a study on use of electronic databases by masters students in the Faculty of Humanities, Development and Social Sciences at the University of KwaZulu-Natal, Pietermaritzburg Campus. The researcher used a survey method to collect data, and the instruments applied in the collection of data were a questionnaire with both open ended and closed questions and a focus group interview. The results of the study found that a majority, 81.3% of masters students, did use the electronic databases while some of them did not use the databases because of various reasons including lack of search skills, problems with password requirements, lack of knowledge about the existence of the database, and dissatisfaction with electronic database services. The researcher did list some recommendations which included: (a) library training should be compulsory for all postgraduate students; (b) and library training should be well advertised.

Nkosi, Leach and Hoskins (2011) carried out a survey on the knowledge and use of library resources by academic staff at the University of KwaZulu-Natal, Pietermaritzburg (UKZNP) campus. Although not related to doctoral students, the study used the survey method with both open ended

and closed questions to collect data. Some questionnaires were administered electronically via e-mail to the respondents and hard copies were also sent through the university internal mail system to the staff. The results of the study showed that a majority, 94% of the staff, used the library weekly while 6% do not use the library at all, or used it less than once a month. Also, 94% used the library for personal research and 91% used the library for lesson preparation. Another 91% of the respondents revealed that they were more familiar with journal collections and less with interlibrary loan, with only 58% requesting interlibrary loan (ILL) materials. The study also found that generally books were used by 88% of academic staff and SABINET was used by 51% of the academic staff. Also, the (UKZNP Library) had a shortcoming in the area of inadequate provision of journals as a result of a deliberate cut in journal subscriptions. Besides the findings, the study also made the following recommendations: (a) that academic staff should be encouraged to attend library instruction programmes appropriate to their needs; and (b) subject librarians should initiate communication between themselves and the academic staff.

The study by Okiki and Asiru (2011) reported on the use of the electronic information sources by postgraduate students in Nigeria and the factors influencing such use. The study covered six universities in the South West of Nigeria. The universities included University of Ibadan, University of Lagos, Olabisi Onabanjo University Ogun State; Federal University of Technology Akure and the University of Agriculture Abeokuta and Lagos State University. A stratified disproportionate random sampling technique was adopted for the study. From the universities of Ibadan and Lagos, 500 respondents each were randomly selected while 1,500 copies of the questionnaire were equally distributed at 250 copies each to the other four universities. The results of the study revealed that one of the factors influencing the use of library electronic information sources (EIS) was that more males 53.82% than females 46.18% used the EIS. Secondly, more masters students, 48.93%, used the EIS than the master of philosophy, 13.85% of students, followed by 7.91% of postgraduate diploma students and 11.20% of the doctoral students. The study also found that 70.78% had formal training in the use of EIS while 29.22% of students had no formal training.

Therefore, the many studies conducted internationally and on the African continent have shed light on the use of library resources by doctoral students and will assist in the discussion of the results of the current study.

2.6 Summary of the chapter

In this chapter, the researcher defined what a literature review is, elaborating on the essence of a literature review, the role of the academic library in the provision of library resources, the purpose of academic libraries in institutions of higher learning, the types of library resources in an academic library, information needs of doctoral students, library and information skills and competencies that doctoral students are expected to have and the information literacy of doctoral students, and concluded by discussing related studies done both internationally and locally.

Chapter 3

Research methodology

3.0 Introduction

This chapter covers the research design and methodology that was used to address the research problem. It also focuses on the population; different data collection techniques used, the questionnaire and the interview; data analysis methods and the validity and reliability of the study. The researcher used the survey method for the study. This approach is similar to what Aitchison (1998) and Hadebe (2010) used in their studies and many of the other studies discussed in the previous chapter. Since research design is a blueprint and a framework that assists researchers to generate answers to their research questions, the researcher adopted the following approach to collecting data on the use of library resources by doctoral students in the College of Humanities, Pietermaritzburg campus of the University of KwaZulu-Natal.

According to Hammersley (1993) in Thody (2006: 99):

Methodology surveys always give the impression that the research design followed a calm, linear and orderly development from your initial idea, its determining philosophy, choice of methods, design of research instruments, data collection, data analysis, through to its final resting place in a document or presentation.

Thody (2006: 99) went further to state that a methodology survey should demonstrate the following methods:

- Validity – to show the foundation in truth through the justification in other literature and similar research projects;
- Applicability – to show how far the methodology is generalisable;
- Reliability – to demonstrate that the researcher has not invented or misrepresented the data, or been careless in the recording or analysis;
- Credibility – to show that other researchers have used similar methods to the researcher or that the researcher has built on other researchers' methods;
- Replicability – to include enough detail to enable other researchers to check the research findings by repeating the method;

- Attraction – gives readers a feel for what it was like to be the researcher; and
- Limitations – to humbly admit to a few difficulties but not to undermine the research by overwhelming self-criticism.

3.1 Research design

This section describes the research design that was adopted by the study. According to Bryman, (2004: 26):

A research design relates to the criteria that are employed when evaluating social research. It is, therefore, a framework for the generation of evidence that is suited both to a certain set of criteria and to the research question in which the investigator is interested.

Kothari (2004: 5) states that “qualitative and quantitative are the two basic paradigms of research”. Both paradigms will be applied in this proposed study, which invariably brings about a triangulation method in the study. Triangulation means that data is gathered by “comparison of results of two or more methods” (Webb et al. 1996 and Smith 1975 in Bailey 1987: 263). According to Pickard (2007: 14), the essential components of the qualitative methodology are:

Literature review, theoretical framework..., fieldwork in a natural setting, using a human instrument, purposive sampling, appropriate data collection techniques, inductive analysis, emergent design, iteration of hypothesis, grounded theory, negotiated outcomes, and forming a tentative working hypothesis leading to the transference of findings based on contextual applicability.

The qualitative researcher allows the phenomenon under investigation to speak for itself and tends to be involved with the phenomenon (Mouton and Marais, 1990:163) in contrast to the quantitative researcher who often wants to “impose a system upon a phenomenon” and remains distant from the phenomenon being researched.

Hopkins (2008) defines quantitative research design as:

Quantifying relationships between variables. Variables are things like weight, performance, time, and treatment. You measure variables on a sample of subjects, which can be tissues, cells, animals, or humans. You

express the relationship between variables using effect statistics, such as correlations, relative frequencies, or differences between means.

3.2 Population

The population of this study comprised registered doctoral students in the College of Humanities and the subject librarians of the Cecil Renaud Library of the UKZN, Pietermaritzburg Campus. There were 139 doctoral students who were duly registered on the Pietermaritzburg Campus from the College of Humanities. These were distributed as follows amongst the schools:

Table 1: Distribution of registered doctoral students in the College of Humanities by School

School	Number of registered doctoral students
School of Applied Human Sciences	11
School of Arts	17
School of Education	26
School of Religion, Philosophy and Classics	48
School of Social Sciences	37
Total	139

In addition to the 139 doctoral students, there were also five subject librarians dedicated to the Humanities disciplines as at August 2012. With a population of less than 300, all the doctoral students were surveyed while the five subject librarians were interviewed as well.

3.3 Data collection instruments

The study used a self-administered questionnaire and semi-structured interview schedule to collect data on the use of library resources by doctoral students in the College of Humanities. The researcher selected both of these data collection instruments because they were mainly used by similar studies which were reviewed in the literature in chapter two. The questionnaire is an instrument through which information is elicited from respondents for the purpose of answering research questions. It usually consists of a set of questions. The questions may be closed, in which case, responses are provided for the respondent to choose the option that best reflects his/her position on a subject or open, in which case, the respondent is free to supply the required information in his/her own words. Interview schedules as indicated above may sometimes be called questionnaires

if they are to be filled out by the respondent. The key difference between interview schedules and questionnaires is that the latter are largely self-administered while the former are not. The interviewer is the person that records responses to interview questions.

3.3.1 Questionnaires

The term questionnaire is sometimes used to refer to both “standardized interview schedules as well as forms to be filled out by the respondent” (Selltiz et al. 1976: 542). “Questionnaires are the most popular instruments for user studies. They can be extremely flexible and helpful to gather information from large or small numbers of users on any topic” Chowdhury and Chowdhury (2011: 40), for the current study questionnaires (appendix 3) comprising both closed and open-ended questions were handed to the doctoral students directly and the researcher returned to collect the questionnaires on the same day in order to minimize non-response bias. However, where doctoral students had traceable addresses, the questionnaires were left with them for later collection.

Although there were open-ended and closed questions, questionnaires are also helpful in user studies such that it helps to reach a large number of respondents very easily in order to obtain information. It is also an instrument that provides numerical data for respondents and it keeps the identity of respondents anonymous. In the current study the doctoral students were given a consent form (appendix 2) to complete, that guaranteed that anonymity and confidentiality would ensue and that the students could voluntarily withdraw at anytime from the study without prejudice.

The questionnaire covered the following sections:

- Background information on respondents (doctoral students); and
- Use of library resources.

3.3.2 Interviews

Interviews are one of the methods of data collection in user studies. According to Chowdhury and Chowdhury (2011: 43):

...interviews are one of the most commonly employed methods of data collection in a qualitative research. It involves asking set questions to a selected group of respondents. They are similar to questionnaires in that respondents are asked specific questions, but they are conducted in person

with a single respondent, with provisions for guiding that person towards a specific research goal or asking instant follow-up questions based on responses obtained.

The interviews are structured when the researcher determines the questions that are asked as well as the range of possible answers. For the current study the interviews (appendix 4) were semi-structured since the researcher did not determine in advance all the questions to which answers would be sought, but allowed the interview process to generate questions relevant to answering the key research questions. According to Chowdhury and Chowdhury, (2011:43) “it also provides more scope for discussion and recording the respondent’s opinions and views”.

Semi-structured interviews with subject librarians were recorded via a tape recorder once permission was granted to the researcher by the subject librarians to do so. Similar to the doctoral students, the librarians were requested to complete a consent form. The interviews were held on two different days, Friday the 12th and Monday the 15th of October respectively, due to the availability of the subject librarians.

On Friday the 12th at exactly 9am, four of the five subject librarians were interviewed separately and at different time slots and at exactly 12: 45pm, the interviews came to an end. While the second phase of the interview was conducted on Monday the 15th with the head of the subject librarians at 2:45pm to 3:45pm. All interviews were conducted in the audio-visual seminar room of the Cecil Renaud Library.

The interview covered the following areas:

- Biographical information relating to the subject librarians; and
- Information relating to the use of library resources by doctoral students.

3.4 Pre-testing of questionnaire

Pre-testing of the questionnaire is very important as this helps the researcher to detect flaws in the questionnaire either in grammar or typographical errors before giving them out to the respondents of the study. Powell (1997: 105) states that pre-testing is an avenue for the researcher to identify questions which could be misunderstood by the participants while at the same time pointing out problems that could not be anticipated by the researcher. The questionnaires were pre-tested on six

(6) doctoral students of the School of Social Sciences at the University of KwaZulu-Natal, Pietermaritzburg campus.

3.5 Data analysis

The data which was collected was sorted and coded. According to Birley and Moreland (1998: 58) “coding is the process of structuring data into an analyzable form”. Data needs to be collated and presented in a way that makes meaning or sense to the researcher and other future researchers and readers. In quantitative data one either uses letters, numerals or alpha-numeric codes to describe the data, which invariably becomes capable of being analyzed without reference to each of the responses of the sample (Birley and Moreland 1998: 58). Also the quantitative data were analyzed using SPSS and represented in the form of charts, frequencies, and tables, while the qualitative data were analyzed using thematic content analysis. According to Babbie and Mouton (2001: 383) content analysis is collecting and organizing information systematically in a standard format that allows analysts to draw a conclusion about the characteristics and meaning of recorded material.

3.6 Validity and Reliability

For the purpose of this study validity and reliability were defined as follows:

Validity as accuracy of measurement, the degree to which an instrument measures that which is supposed to be measured, and the purpose is to ascertain to what degree the measure is accurate for a specific purpose. While reliability is defined as consistency of measurement, the degree to which an instrument measures the same way each time it is used under the same conditions with the same subject and the purpose is to assess an instrument’s ability to measure the same way in each administration to the same reliability sample (Sproull 1995: 74).

In this study for the purpose of validity, pre-testing of the questionnaires was done on doctoral students in the School of Social Science, while in order to enhance reliability the researcher documented the data collection step-by-step for future researchers to follow.

3.7 Summary of the chapter

This chapter describes what was done in the study in order to collect data to answer the research questions. The researcher adopted triangulation where qualitative and quantitative methods were used to collect data. A questionnaire and interview schedule was used as data collection instruments. For validity and reliability purposes, a pre-test was conducted and the data collection procedures were recorded. Finally SPSS version 21 was used for analyzing the data.

Chapter 4

Results of the survey

4.0 Introduction

This chapter presents the results of the survey. The study set out to investigate the use of library resources in the College of Humanities of the UKZN, Pietermaritzburg Campus. The study used a self-administered questionnaire and semi-structured interview schedule to collect data on the use of library resources by doctoral students in the College. Results for each question in the questionnaire and interview schedule are presented. SPSS version 21 was used to analyze the questionnaire data while data from the semi-structured interview was analyzed using thematic content analysis.

4.1 Response rate

As stated in the previous chapter the self-administered questionnaires were distributed to doctoral students in the College on the UKZNP campus. Out of a total of 118 questionnaires distributed, 99 were returned yielding a response rate of 83.9%.

According to Owen and Jones (1994) in Saunders, Lewis and Thornhill (2000:158), a response rate in surveys could be as low as 40% and a response rate of approximately 30% is reasonable. Therefore this study's response rate of 83.9% was a good response rate which allows the researcher an avenue to make generalizations about the total population.

At the interview session, a total of five subject librarians were interviewed who attend to students of various disciplines within the College of Humanities. The different subject areas of the subject librarians included: Classics, Drama, Culture and Media Studies, Education, Educational Psychology, English, Ethics, Gender Studies, Information Studies, Philosophy, Policy and Development Studies, Politics, Sociology, Theology and Religious Studies and Visual Arts.

4.2 Questionnaire results

The questionnaire was arranged to cover two main sections of the research topic. Section A of the questionnaire looked at the background information of the doctoral students, while section B examined their use of library resources.

It must be noted at this point that, questions 14, 19, 37, 39 and 40 were multiple response questions that allowed respondents to indicate more than one response, while questions 17, 28, 33, 42 and 44 were open-ended questions that allowed respondents to provide their own response to the question. The symbol N indicates the number of respondents that should have answered a particular question. Figures are rounded-off to one decimal place.

4.3. Section A- Background information

The background information provides more detail about who the respondents were, their degree, the school, cluster they belonged to in the College of Humanities, disciplines they were specializing in, the nature of their study - whether it was full-time or part-time. It also addressed their gender, age, race, nationality and whether or not they owned a personal computer.

4.3.1. Degree registered for

Question 1 was asked to determine the degree respondents were registered for.

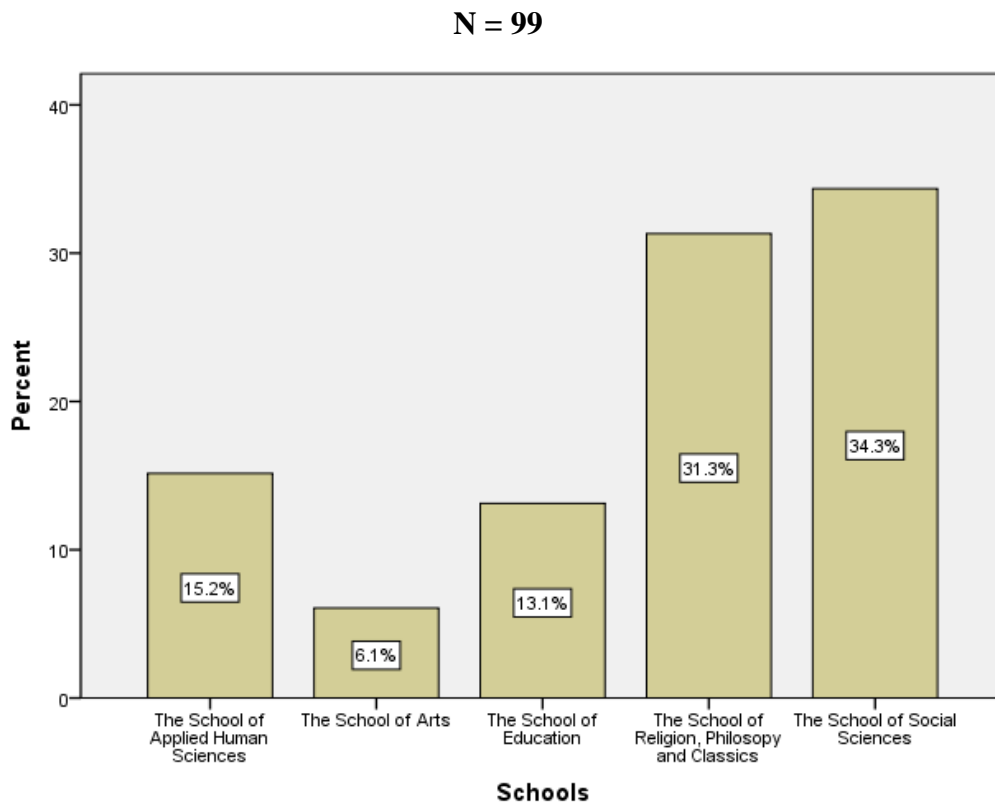
The first question asked respondents to indicate the degree programme they were registered for in the College. All 99 respondents (100%) indicated they were registered for a PhD. This is in keeping with the sampling criterion of the study. However, the PhD students did not indicate the specific PhD programmes they were registered for.

4.3.2 Schools students belonged to

In question 2 respondents were asked to indicate the school they belong to.

Figure 1 shows that respondents were from different schools in the College of Humanities although they were all doing a doctoral degree. The highest number of respondents were from the School of Social Sciences with 34 (34.3%); followed by the School of Religion, Philosophy and Classics, with 31 (31.3%); then the School of Applied Human Sciences, with 15 (15.2%); followed by the School of Education with 13 (13.1%), and the least respondents were from the School of Arts with six (6.1%).

Figure 1: Schools



4.3.3 Cluster the students belonged to

In question 3 respondents were asked to indicate which cluster they belonged to in their schools.

Table 2 shows that 18 (18.2%) students were from the International and Public Affairs Cluster followed by 14 (14.1%) from the Development Cluster.

Fifty five (55.6%) of the respondents did not respond to the question because of the new configuration process of the UKZN, and as a result doctoral students did not know which cluster they belonged to.

Table 2: Clusters in the five schools

N = 99

Cluster	Frequency	Percent
International and Public Affairs	18	18.2%
Development Studies	14	14.1%
Media, Drama and Visual Arts	3	3.0%
Theology and Ethics	3	3.0%
Society and Social Change	2	2.0%
Education and Development	1	1.0%
Higher Education	1	1.0%
Languages and Literature	1	1.0%
Philosophy and Ethics	1	1.0%
Non response	55	55.6 %
Total	99	100.0%

4.3.4 Discipline of the students

In question 4 respondents were asked to indicate the disciplines they belonged to.

Table 3 shows the frequency and percentage of respondents who indicated their disciplines in the questionnaire. Looking at the table below, it shows that most of the respondents were from the Information Studies and Psychology disciplines with both 14 (14.1%) each respectively.

Table 3: Disciplines

N = 99

Discipline	Frequency	Percent
Information Studies	14	14.1%
Psychology	14	14.1%
Political Science	9	9.1%
Adult Education	5	5.1%
Biblical Studies	5	5.1%
Media and Cultural Studies	4	4.0%
Policy and Development Studies	4	4.0%
Theology and Development	4	4.0%
Gender and Religion	3	3.0%
Philosophy	3	3.0%
Education and Development	2	2.0%
International Relations	2	2.0%
Practical Theology	2	2.0%
Sociology	2	2.0%
Systematic Theology	2	2.0%
African Theology	1	1.0%
Education Leadership Management and Policy	1	1.0%
Educational Psychology	1	1.0%
English Education	1	1.0%
Ethics	1	1.0%
French	1	1.0%
Higher Education	1	1.0%
History of Christianity	1	1.0%
IsiZulu	1	1.0%
Ministerial Studies	1	1.0%
Public Policy	1	1.0%
Religion and Politics	1	1.0%
Non response	12	12.1%
Total	99	100.0%

4.3.5 Year of study

Question 5 asked respondents to indicate their year of study.

Table 4 below shows that 32 (32.3%) of the doctoral students who responded were in their first year of study. Only one (1.0%) student was in their fifth year of study, while 14 (14.1%) did not respond to the question.

Table 4: Year of study

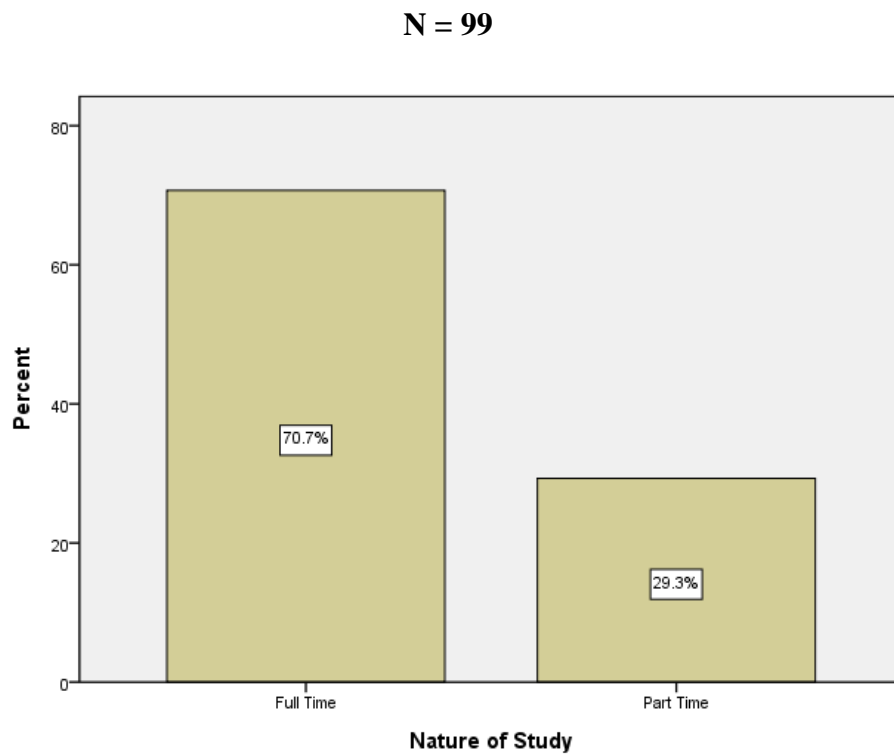
N = 99

Year of study	Frequency	Percent
1	32	32.3%
2	26	26.3%
3	17	17.2%
4	9	9.1%
5	1	1.0%
Non response	14	14.1%
Total	99	100.0%

4.3.6 Nature of study

In question 6 respondents were asked to indicate whether they were full-time or part-time students. Figure 2 illustrates that a total of 99 responded to the question relating to the nature of their study. Of which 70 (70.7%) indicated they were full-time students and 29 (29.3%) indicated they were part-time students. This therefore shows the majority of the respondents were full-time doctoral students.

Figure 2: Nature of study



4.3.7 Gender of doctoral students

Question 7 was asked to indicate the total number of respondents who were female or male.

From a total of 99 respondents, 44 (44.4%) were female and 55 (55.6%) were male. It is therefore clear that a majority of the respondents doing a doctoral degree in the College of Humanities were males.

4.3.8 Age of respondents

Question 8 asked respondents to indicate their age group.

Table 5 shows the age range, frequency and percentage of respondents. The highest number of respondents 22 (22.2%) were from the age group of 36-40 years followed by 16 (16.2%) of the students in each of the 31-35 and 46-50 age groups. One respondent did not respond to the question.

Table 5: Age

N = 99

Age Range	Frequency	Percent
36-40	22	22.2%
31-35	16	16.2%
46-50	16	16.2%
26-30	13	13.1%
41-45	12	12.1%
51-55	12	12.1%
56-60	7	7.1%
Non response	1	1.0%
Total	99	100.0%

4.3.9 Race

In question 9 the students were asked to indicate their race groups.

Table 6 indicates that most of the respondents were black students with 75 (75.8%); followed by 19 (19.2%) white students.

Table 6: Race

N = 99

Race	Frequency	Percent
Black	75	75.8%
White	19	19.2%
Indian	3	3.0%
Coloured	1	1.0%
Non response	1	1.0%
Total	99	100.0%

4.3.10 Nationality of the students

Question 10 asked respondents to indicate their nationality.

Table 7 shows the nationality of respondents. Out of 99 respondents, 37 (37.4%) were South African; followed by 20 (20.2%) who were Nigerians. Only three respondents did not respond to the question.

Table 7: Nationality

N = 99

Nationality	Frequency	Percent
South African	37	37.4%
Nigerian	20	20.2%
Zimbabwean	12	12.1%
Ugandan	5	5.1%
Basutho	4	4.0%
Tanzanian	4	4.0%
Rwandan	3	3.0%
Malawian	2	2.0%
Namibian	2	2.0%
British	1	1.0%
Burundian	1	1.0%
Congolese	1	1.0%
Ethiopian	1	1.0%
Kenyan	1	1.0%
Sudanese	1	1.0%
Zambian	1	1.0%
Non response	3	3.0%
Total	99	100.0%

4.3.11 Ownership of a personal computer

Question 11 asked the students if they had a personal computer.

Of the 99 students, 93 (93.9%) owned a personal computer while five (5.1%) did not have personal computers of their own. Only one (1.0%) respondent did not respond to the question.

4.4 Section B – Use of library resources

The information in this section deals with the use of library resources.

4.4.1 Use of the UKZNP Library

Question 12 (a) sought to establish if the doctoral students of the College of Humanities used the UKZNP Library or not.

Of the 99 students, 93 (93.9%) used the UKZNP Library while five 5 (5.1%) do not use the UKZNP Library. One (1.0%) of the respondents did not respond to the question. Therefore a majority of students used the Library.

The five (5.1%) students who did not use the UKZN Library provided reasons for not doing so. The following two reasons were provided:

- Four (80%) respondents said they lived far away and so they used the library close to them; and
- One (20%) respondent said *“I am out of the country so I use libraries in my country”*.

4.4.2 Frequency of visits to the UKZNP Library

Question 13 asked how often the doctoral students visited the UKZNP Library.

Table 8 depicts how often the respondents visited the UKZNP Library. Of the 99 respondents, 34 (34.3%) visited the Library mostly on a weekly basis, while 29 (29.3%) visited monthly. The library was rarely visited by 22 (22.2%) of the students while two (2.0%) never visited the library.

Table 8: Frequency of visits

N = 99

Average visit to UKZNP library	Frequency	Percent
Weekly	34	34.3%
Monthly	29	29.3%
Rarely	22	22.2%
Fortnightly	8	8.1%
Daily	3	3.0%
Never	2	2.0%
Non response	1	1.0%
Total	99	100.0%

4.4.3 Reasons for visiting the library

Question 14, a multiple response question, asked doctoral students to state the main reasons for visiting the library. Table 9 below shows that of a total of 99 respondents who responded to the question, 93 (97.9%) used the library to borrow material, 52 (54.7%) to use the interlibrary loan service, 38 (40.0%) to search the databases, 37 (38.9%) used the library to read, 24 (25.3%) to consult subject librarians, while 22 (23.2%) to print/copy materials, and 21 (22.1%) to study. Other reasons for using the library were provided by four (4.0%) respondents each who visited the library for the following reasons:

- *To attend training;*
- *To write and type their research theses; and*
- *To use the multimedia room as an alternative to the LAN.*

Thus, a large portion of the respondents, 93 (32.4%), used the library to borrow material for their doctoral research.

Table 9: Reasons for visiting the Library

N = 99

Reasons for visiting the Library	Responses	Percent
	N	%
To borrow material	93	97.9%
To use inter-library loan	52	54.7%
To search databases	38	40.0%
To read	37	38.9%
To consult a librarian	24	25.3%
To print/copy material	22	23.3%
To study	21	22.1%
Total	287	302.1%

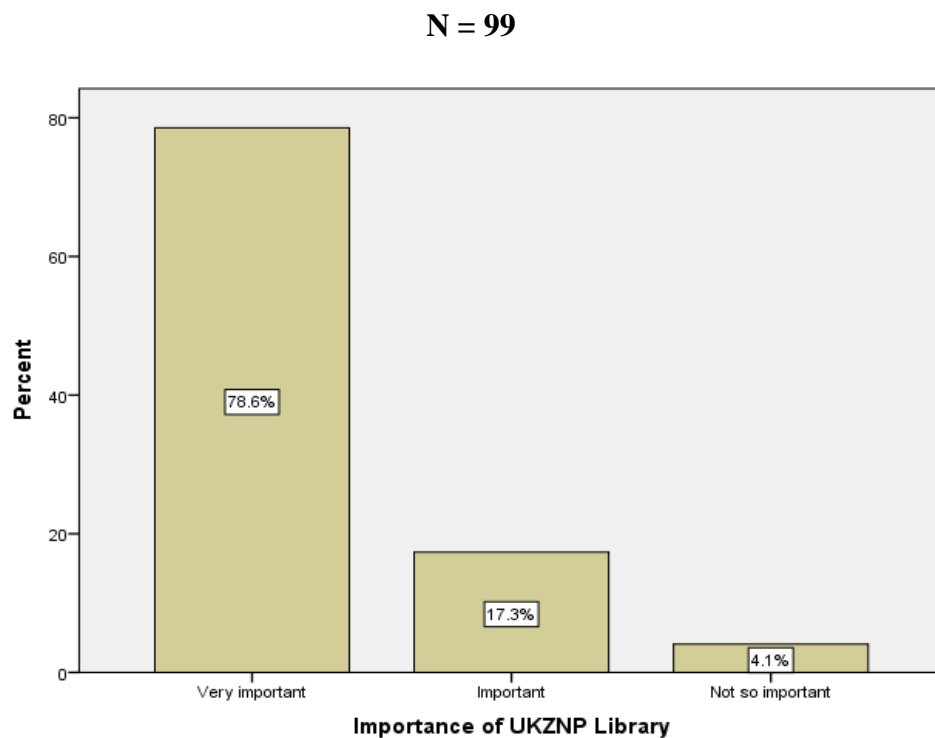
*As this is a multiple response question, the total does not always add up to 100

4.4.4 Importance of UKZNP Library

Question 15 asked the doctoral students to indicate how important the UKZNP Library was to their studies.

Figure 3, shows that 77 (78.6%) indicated that the UKZNP was very important to their studies, 17 (17.3%) said it was important to their studies, while four (4.1%) said the library was not so important. While one (1.0%) respondent did not respond to the question. This shows that a majority of the students thus considered the library very important for their doctoral studies.

Figure 3: Importance of UKZNP Library



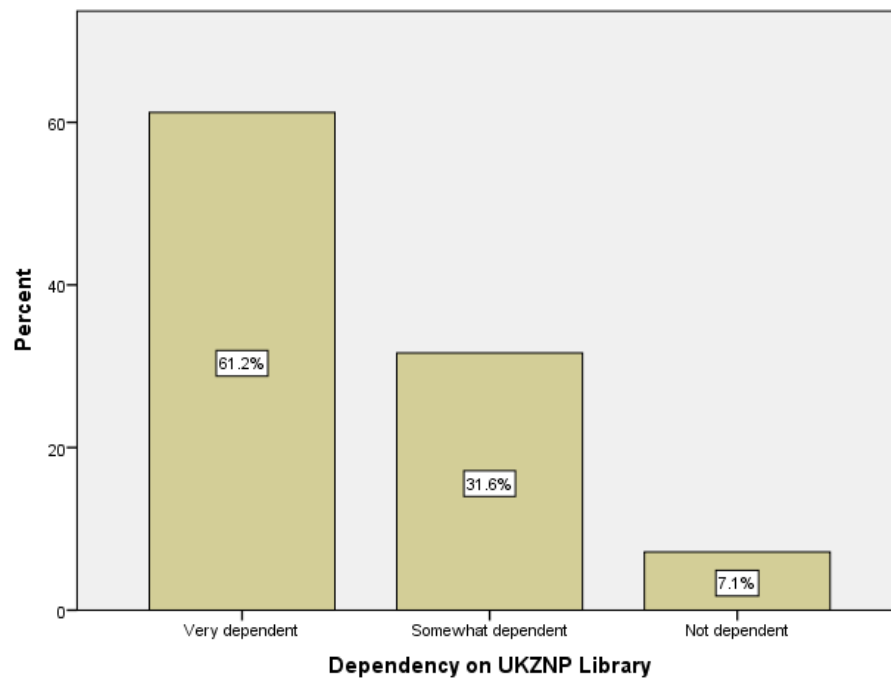
4.4.5 Dependence on UKZNP Library

Question 16 asked doctoral students to indicate how dependent they were on the UKZNP Library for their doctoral studies.

Figure 4 shows that 60 (61.2%) were very dependent on the UKZNP Library, 31 (31.6%) were somewhat dependent, seven (7.1%) were not dependent, while one (1.0%) respondent did not respond to the question.

Figure 4: Dependence on UKZNP Library

N = 99



4.4.6 Reasons for dependence on the Library

Question 17, an open-ended question, asked doctoral students to state their reasons for the answers given with regard to question 15 and 16. Five (5.0%) did not respond to the question, while 94 (94.0%) did respond. The 94 (94.9%) who responded provided the following reasons:

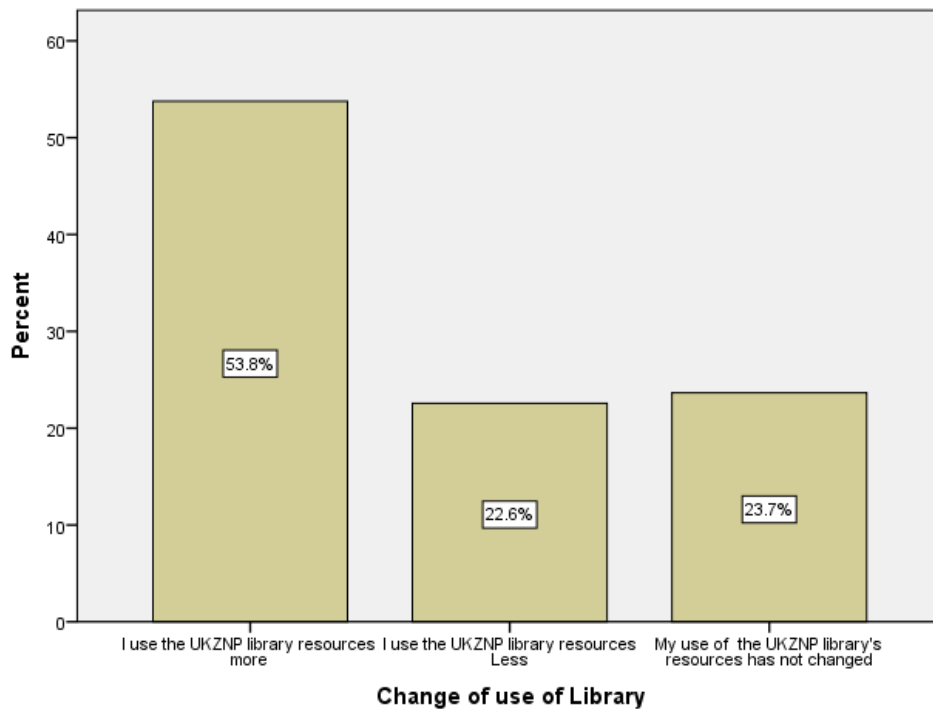
- *All information materials I use, I get them from the library, 38 (40.4%);*
- *All the books I have to use, have to be found in our library otherwise I order them from the interlibrary loan service, 13 (13.8%);*
- *Although I rarely go to the UKZNP library, I access on-line library resources often, six (6.3%);*
- *Although internet now makes some sources more accessible, many of them have to be accessed through library, three (3.1%);*
- *Any advanced degree requires a student to 'consult' all or most sources of literature in your field of study, three (3.1%);*
- *Because I am far away from the library, three (3.1%);*
- *Because I have studied on this campus for more than five years to know how to use the library, one (1.0%);*
- *Because I use internet databases more than library, 11 (11.7%);*
- *I also use other libraries and other sources, 12 (12.7%);*
- *My research was based in Geneva, two (2.1%);*
- *Limited texts in my subject area, one (1.0%); and*
- *For research material, one (1.0%).*

4.4.7 Change of use of UKZNP Library

Question 18 asked the respondents to indicate if their use of the UKZNP Library's resources has changed over the past few years. Figure 5 shows the response of the respondents. A majority of the respondents 53 (53.8%) used the library, while 22 (22.6%) used it less, and 23 (23.7%) said their use of the library had not changed. However, six (6%) respondents did not respond to the question.

Figure 5: Change of use of Library

N = 99



4.4.8 Library resources used

Question 19, a multiple response question, asked respondents to indicate the library resources they made use of.

Table 10 shows that from a total of 99 respondents, 85 (86.7%) used the electronic databases, 77 (78.6%) used print materials, 68 (69.4%) used interlibrary loan, 60 (61.2%) used theses and dissertations, 58 (59.2%) used OPAC (library catalogue), 33 (33.7%) consulted the subject librarians, and 27 (27.6%) used the reference collection. Based on the table, it is obvious that the majority of the respondents used the electronic databases and the print materials.

Table 10: Library resources used

N = 99

Library resources used	Responses	Percent
	N	%
Electronic Databases	85	86.7%
Print Materials (books and journals)	77	78.6%
Inter-Library Loan	68	69.4%
Theses and Dissertations	60	61.2%
OPAC (Library Catalogue)	58	59.2%
Subject Librarians	33	33.7%
Reference Collection	27	27.6%
Total	408	416.3%

*As this is a multiple response question, the total does not always add up to 100%

4.4.9 Attendance of library training or orientation

Question 20 asked whether respondents had attended training or orientation on the use of library resources. A vast majority of the respondents, 75 (75.8%) indicated they had attended training or orientation on the use of library resources while 23 (23.2%) had not attended. One (1.0%)

respondent did not respond to the question. Thus a majority of the respondents had attended training or orientation on the use of library resources.

The 23 (23.2%) respondents who had not attended were asked to provide reasons. Of the 23 (23.2%), 15 (15.9%) provided the following reasons:

- *They didn't offer me training, one (6.6%);*
- *Not informed of training or orientation sessions, one (6.6%);*
- *I was indisposed then, one (6.6%);*
- *Because I have had training in all previous institutions where I have studied, one (6.6%);*
- *Self taught sufficiently skilled, one (6.6%);*
- *I am a librarian, one (6.6%);*
- *Did not require training, three (20%);*
- *Were not resident on campus when training was provided, three (20%); and*
- *Time constraints, three (20%).*

4.4.10 Rating of training or orientation

Question 21 sought to rate the training or orientation doctoral students had received from the library.

Of the 75 respondents who had received training, 52 (52.50%) were satisfied with the training or orientation, 19 (19.2%) were highly satisfied, three (3.0%) were less satisfied, while one (1.0%) was not satisfied with the library training or orientation.

4.4.11 Overall satisfaction with the services of UKZNP Library

Question 22 asked doctoral students if they were satisfied with the services provided by the UKZNP Library.

Of the 99 respondents, 91 (91.0%) respondents were satisfied with the services provided by the UKZNP Library. Five (5.1%) said they were not satisfied with the services for the following reasons:

- *Books not found in PMB (Pietermaritzburg) campus most of the time, two (40%);*
- *Books take long to catalogue, one (20%);*
- *The IT component of the library is problematic, one (20%); and*
- *Library users keep books in their custody for too long, one (20%).*

4.4.12 Consultation with subject librarians

Question 23 asked the doctoral students if they consulted with subject librarians.

Out of the 99 respondents, 54 (54.5%) said they did consult with subject librarians, 43 (43.4%) said they did not and provided the following reasons for not consulting:

- They could access information by themselves, 20 (46.5%);
- They were not aware of the subject librarians, four (9.3%);
- They searched online for books and articles, one (2.3%);
- They were busy writing up their theses, one (2.3%);
- Made used of University of the Western Cape, Library (UWC) one (2.3%);

Not all the respondents who did not consult with subject librarians provided reasons why they did not consult with subject librarians.

4.4.13 Assistance from subject librarians on how to use the electronic resources

Question 24 asked the doctoral students if they had asked the subject librarians for help on how to use the electronic databases. Of the 99 respondents, 43 (43.4%) had asked for help from the subject librarians on how to use the electronic databases, 13 (13.1%) had not asked for help, while 43 (43.4%) did not respond to the question. Looking at the percentage responses to the question, it was clear that both respondents who asked for assistance and the respondents that did not respond to the question were equal.

4.4.14 Assistance from subject librarians on how to locate materials in the library

Question 25 established whether the doctoral students had asked the subject librarians for help on how to locate material in the library.

Of the 99 respondents, 39 (39.4%) had asked for help from subject librarians on how to locate material in the library, 15 (15.2%) had not asked for help, while 45 (45.5%) did not respond to the question. For this question, the number of no responses was higher than for the respondents who did ask the subject librarians for help on how to locate materials.

4.4.15 Assistance from subject librarians on how to use the printers/copiers in the library

Question 26 established if the doctoral students had asked the subject librarians for help on how to use the printers/copiers in the library.

Out of 99 respondents, 20 (20.2%) had asked for help from the subject librarians on how to use the printers/copiers in the library, 34 (34.3%) said they had not asked for help, while 45 (45.5%) did not respond to the question. More students did not respond to the question than those who said they had asked for help.

4.4.16 Satisfaction with the service provided by subject librarians

Question 27 sought to establish the level of satisfaction of doctoral students with the services provided by subject librarians at the UKZNP Library. Of the 99 respondents that responded to the question, 69 (69.7%) were satisfied with the services provided by the subject librarians, four (4.0%) said they were not, while 26 (26.3%) did not respond to the question. Therefore, a majority of the students were satisfied with the services provided by the subject librarians.

4.4.17 Challenges experienced when consulting the subject librarians

Question 28 an open-ended question, asked doctoral students to state the major challenges they experienced when consulting with subject librarians at the UKZNP Library. All respondents had indicated the same challenge when trying to consult with subject librarians, which was:

- Subject librarians are always very busy attending to students and sometimes not available when needed, 99 (100%).

4.4.18 Use of print resources

Question 29, sought to establish if doctoral students used print resources. Of the 99 respondents, 85 (85.9%) said they used print resources, seven (7.1%) said they did not use print resources, while seven (7.1%) did not respond to the question. It is clear that the print resources were very useful to the doctoral students for their research.

4.4.19 Importance of print resource to studies

Question 30, asked how important the print resources were to the doctoral students' studies. Table 11 below shows how the different library print resources were important for the doctoral students.

Table 11: Importance of print resources

N = 99

Print resources	Very Important		Important		Not so Important	
	Frequ ency	Percent age	Frequ ency	Percent age	Frequ ency	Percent age
Books	82	82.8%	13	13.1%	1	1.0%
Journals	78	78.8%	10	10.1%	4	4.0%
Reference materials e.g. Dictionaries and Encyclopaedias	28	28.3%	22	22.2%	30	30.3%
Indexes and Abstracts	19	19.2%	21	21.2%	35	35.4%
Newspapers	9	9.1%	28	28.3%	40	40.4%
Theses and Dissertation	1	1.0%	1	1.0%	0	0.0%

Books and journals were considered very important by 82 (82.8%) and 78 (78.8%) of the doctoral students respectively. However, only one student (1.0%) considered the theses and dissertations very important and important for their studies.

4.4.20 Frequency of use of print resources

Question 31, asked how often the print resources were used by doctoral students. Table 12 shows how often the different print resources were used by the doctoral students.

Table 12: Frequency of use of print resources

N = 99

Print resources	Daily		2-4 times a week		Once a week		Once in 2 weeks		Once a month		Never	
	Frequency	Percent age	Frequency	Percent age	Frequency	Percent age	Frequency	Percent age	Frequency	Percent age	Frequency	Percent age
Book	41	41.4%	14	14.1%	15	15.2%	6	6.1%	18	18.2%	0	0.0%
Journals	39	39.4%	16	16.2%	7	7.1%	8	8.1%	16	16.2%	2	2.0%
Reference materials	6	6.1%	10	10.1%	11	11.1%	5	5.1%	26	26.3%	16	16.2%
Newspapers	7	7.1%	4	4.0%	5	5.1%	3	3.0%	20	20.2%	31	31.3%
Indexes and abstracts	3	3.0%	3	3.0%	6	6.1%	6	6.1%	22	22.2%	26	26.3%
Theses and Dissertation	0	0.0%	2	2.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%

These results are similar to question 30 where 41 (41.4%) and 39 (39.4%) doctoral students used books and journals respectively.

4.4.21 Satisfaction with print resources

Question 32 asked doctoral students if they were satisfied with the print resources provided by UKZNP Library. Of the 99 respondents, 84 (84.8%) said they were satisfied with the print resources provided by the UKZNP Library, nine (9.1%) said they were not satisfied, while six (6.1%) did not respond to the question. Therefore a majority of the respondents were satisfied with the print resources provided.

4.4.22 Challenges experienced when using print resources

Question 33, an open-ended question, asked doctoral students to state the major challenges they experienced when using print resources at the UKZNP Library. Of the 99 respondents 49 (49.4%) provided the following challenges when using print resources:

- *Hard to locate books on shelves because they are misplaced/disorganized, 20 (40.8%);*
- *Only a few copies of some books are available, three (6.1%);*
- *Lecturers borrow books for longer periods making it hard to get hold of such books, one (2.0%);*

- *Too few books for too many students to use at the same time*, two (4.0%);
- *Most print resources related to studies are not current and the current ones are not on the shelves*, four (8.1%);
- *Resources not available, yet found in catalogue*, four (8.1%);
- *Books on reserve are given out for just one hour which is not enough*, two (4.0%); and
- *Sometimes materials are not readily available for loan*, three (6.1%).

At this point it should be noted that not all the respondents stated reasons for the challenges they experienced.

4.4.23 Familiarity with electronic resources

Question 34 asked the doctoral students if they were familiar with electronic resources before they enrolled for their doctoral studies. A majority of the respondents, 83 (83.8%), said they were familiar with electronic resources before enrollment for a doctoral degree, while 13 (13.1%) said they were not familiar with electronic resources, and three (3.0%) did not respond to the question. Therefore it was clear that a majority of the respondents knew how to use the electronic resources for their doctoral studies.

4.4.24 Use of UKZNP electronic resources

Question 35 asked if doctoral students had used the electronic resources provided by the library. A majority of the respondents, 94 (94.9%), said they had used the electronic resources provided by the UKZNP Library, four (4.0%) said they had not, while one (1.0%) did not respond to the question.

The four (4.0%) students who had not used the electronic resources were asked to provide reasons.

The following reasons were provided:

- They were not familiar with the electronic resources of UKZNP Library, two (50%); and
- They had problems with logging into the databases, two (50%).

4.4.25 Competent users of library's electronic resources

Question 36 asked the doctoral students if they considered themselves to be competent users of the library's electronic resources.

Out of 99 respondents, 79 (79.8%) said they considered themselves to be competent users of the library's electronic resources, 16 (16.2%) said they were not, while four (4.0%) did not respond to the question. The sixteen (16.2%) who did not consider themselves competent provided the following reasons:

- Not competent because of lack of confidence, six (37.5%);
- Lack of formal training, four (25%);
- Slow speed when accessing the electronic resources, three (18.7%); and
- Asked for assistance when the need arose, three (18.7%).

4.4.26 Electronic resources used

Question 37 a multiple response question, asked doctoral students to indicate the electronic resources used. Table 13 below shows a total of 99 respondents, with their choices of electronic resources. The most frequently used databases in their order of usage were:

- EbscoHost (76/80.0%);
- Library Catalogue (69/72.6%);
- JSTOR (64/67.4%);
- SABINET (58 /61.1%); and
- African Journals Online (57/60.0%).

The least used electronic databases were:

- Popline (3/.5%);
- CSA Illuminia (3/.5%);
- Wiley On-line (2/2.1%);
- Informaworld (2/2.0%);
- Aluka Digital Library (1/1.1%); and
- Taylor and Francis On-line (1.1%).

Table 13: Electronic resources used**N = 99**

Electronic resources used	Responses N	Percent
EbscoHost	76	80.0%
Library catalogue	69	72.6%
JSTOR	64	67.4%
SABINET	58	61.1%
African journals online	57	60.0%
ProQuest	37	38.9%
ScienceDirect	28	29.5%
ERIC	27	28.4%
Directory of Open Access journals	24	25.3%
Emerald Insight	22	23.2%
Library and Information Science Abstracts (LISA)	19	20.0%
NEXUS: Current and completed research	18	18.9%
Project Muse	16	16.8%
Web of Knowledge	13	13.7%
SwetsWise	13	13.7%
Wilson Web	12	12.6%
LexisNexis	9	9.5%
Google Scholar	7	7.4%
SilverPlatter	5	5.3%
Popline	3	3.2%
CSA Illuminia	3	3.2%
Wiley On-line	2	2.1%
Informaworld	2	2.1%
Aluka digital library	1	1.1%
Total	585	615.8%

4.4.27 Frequency of use of electronic resources

Question 38 asked doctoral students to indicate how often they used the library's electronic resources. Table 14 displays the frequency and percentage of use of the UKZNP Library's electronic resources.

Table 14: Frequency of use of electronic resources
N = 99

Name of Database	Daily		Weekly		Monthly		Never	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
JSTOR	24	24.2%	24	24.2%	17	17.2%	2	2.0%
EbscoHost	19	19.2%	37	37.4%	15	15.2%	5	5.1%
Library Catalogue	11	11.1%	34	34.3%	23	23.2%	2	2.0%
African Journals Online	9	9.1%	21	21.2%	18	18.2%	5	5.1%
SABINET	8	8.1%	22	22.2%	24	24.2%	6	6.1%
ProQuest	8	8.1%	14	14.1%	11	11.1%	6	6.1%
ERIC	8	8.1%	6	6.1%	8	8.1%	7	7.1%
ScienceDirect	7	7.1%	12	12.1%	8	8.1%	7	7.1%
Emerald Insight	6	6.1%	5	5.1%	9	9.1%	8	8.1%
Directory of Open Access Journals	5	5.1%	8	8.1%	4	4.0%	5	5.1%
Web of Knowledge	4	4.0%	4	4.0%	6	6.1%	8	8.1%
Project Muse	4	4.0%	5	5.1%	9	9.1%	6	6.1%
Aluka Digital Library	3	3.0%	1	1.0%	2	2.0%	7	7.1%
Swetswise	2	2.0%	5	5.1%	6	6.1%	6	6.1%
Library and Information Science Abstracts (LISA)	2	2.0%	4	4.0%	6	6.1%	7	7.1%
LexisNexis	2	2.0%	4	4.0%	1	1.0%	10	10.1%
Wilson Web	1	1.0%	1	1.0%	4	4.0%	10	10.1%
NEXUS: Current and Completed Research	1	1.0%	3	3.0%	6	6.1%	9	9.1%
CSA Illuminia	1	1.0%	2	2.0%	0	0.0%	9	9.1%
SilverPlatter	0	0.0%	1	1.0%	0	0.0%	10	10.1%
Popline	0	0.0%	1	1.0%	1	1.0%	10	10.1%

4.4.28 Most useful electronic databases

Question 39 asked respondents to rank the electronic databases in terms of usefulness. The responses were weighted and Table 15 below presents the results for the most useful electronic database to the least. As seen from the table below, the most useful electronic databases were EbscoHost, JSTOR, the Library Catalogue and ProQuest, while the four least useful databases were Aluka Digital Library, Taylor and Francis Online, LexisNexis and SilverPlatter.

Table 15: Most useful electronic databases

N = 99

1	EbscoHost	32%
2	JSTOR	19%
3	Library Catalogue	18%
4	ProQuest	12%
5	Google Scholar	10%
5	ScienceDirect	10%
7	Emerald Insight	9%
8	SABINET	8%
8	Library and Information Science Abstracts (LISA)	8%
10	African Journals Online	7%
11	ERIC	6%
11	Project Muse	6%
13	Web of Knowledge	4%
13	Nexus: Current and Completed Research	4%
15	Directory of Open Access Journals	3%
16	Swetswise	2%
16	Informaworld	2%
16	Wilson Web	2%
19	Aluka Digital Library	1%
19	Taylor and Francis Online	1%
19	LexisNexis	1%
22	SilverPlatter	1%
22	SilverPlatter	1%

4.4.29 Different access points for electronic databases

Question 40, a multiple response question, asked the respondents to indicate the various places they could access the electronic databases from.

Table 16 shows that, out of 99 respondents, 51 (56.7) used remote access, 43 (47.8) used the library, 41 (45.6) used the LAN, and 36 (40.0) used the postgraduate rooms to access electronic databases. One (1.1%) student did not respond to the question. More than half the doctoral students accessed the electronic databases remotely.

Table 16: Access points for electronic databases

N = 99

Electronic databases	Responses	Percent
	N	%
Remote Access (off campus)	51	56.7%
Library	43	47.8%
LAN	41	45.6%
Post-graduate rooms	36	40.0%
Offices on Campus	21	22.1%
Personal Laptop	2	2.1%
Cluster Library LTI	1	1.1%
Residence Room	1	1.1%
Total	196	206.3%

*As this is a multiple response question, the total does not always add up to 100

4.4.30 Satisfaction with electronic resources

Question 41 asked the doctoral students to indicate their satisfaction with the electronic resources provided by the UKZNP Library. Of the 99 respondents, 86 (86.9%) were satisfied, six (6.1%) were not satisfied; while seven (7.1%) did not respond to the question. Thus a majority of the doctoral students were satisfied with the electronic resources provided by the Library.

4.4.31 Challenges experienced when using electronic databases

Question 42, an open-ended question, asked the doctoral students to state the major challenges they experienced when using the electronic databases at the UKZNP Library. Of the 99 respondents, 51 (51.5%) provided the following list of challenges:

- Many important journals and books are not subscribed to for electronic use: 10 (19.6%);
- Very slow connections due to server capacity: nine (17.6%);
- Some databases do not have full-text but only abstracts: eight (15.6%);
- Password issues when using remote access: seven (13.7%);
- Long queues to use the computers: five (9.8%);
- Did not know how to use the electronic databases: four (7.8%); and
- Selecting the right keyword to search the databases: four (7.8%);

At this point it must be noted that not all the respondents stated reasons for the challenges they experienced.

4.4.32 Use of interlibrary loan service

Question 43 asked the doctoral students if they made use of the interlibrary loan services of the UKZNP Library.

Of a total of 99 respondents, 75 (75.8%) used the interlibrary loan services of the UKZNP Library; 19 (19.2%) did not use the services while five (5.1%) did not respond to the question. The 19 (19.2%) students who did not use the service were asked to provide reasons for not using the service.

The following reasons were provided:

- *I am a new student for now so have not used it*, five (26.3%);
- *I find the relevant printed materials always available from the library*, five (26.3%);

- *I have registered with another library so I use their inter-library loan services, three (15.7%); and*
- *Sometimes you order interlibrary loan books and they do not arrive, three (15.7%).*

At this point it should be noted that, not all the respondents stated reasons for not using interlibrary loan service.

4.4.33 Recommendations on how to improve the UKZNP Library services

Question 44, an open-ended question, allowed doctoral students to make suggestions on how to improve on the UKZNP Library services. Of the 99 respondents 69 (69.6%) provided the following recommendations:

- *Conduct information literacy training programmes regularly for doctoral students, 14 (20.2%);*
- *Library for doctoral students alone in the various schools, probably for the different clusters for the purpose of accessing materials, two (2.8%);*
- *Provision of relevant materials that cannot be received from interlibrary loan, three (4.3%);*
- *Interlibrary loan should be more effective by alerting students of due dates on books, one (1.4%);*
- *Increase hours of multimedia room for doctoral students, one (1.4%);*
- *Students should be provided with the opportunity to recommend books on subject areas for the library; one (1.4%);*
- *Provide doctoral students study space in the library, two (2.8%);*
- *Email should be sent to doctoral students about available resources, three (4.3%);*
- *More research computers should be made available on which tutorials should be installed, four (5.7%);*
- *More journals should be subscribed to, three (4.3%);*
- *Materials should be shelved in their right place at all times, three (4.3%);*
- *Have a fully functioning research commons with expert assistance for postgraduate students, four (5.7%);*
- *Library staff should be approachable and helpful, two (2.8%);*
- *Loan period of materials should be extended to two months especially for students outside the country, eight (11.6%);*

- *Provide more copies for books that are regularly used to avoid long waiting periods, for example, research methodology books, three (4.3%); and*
- *Place all necessary materials for doctoral students on reserve shelves for easy access, one (1.4%).*

4.5 Summary of questionnaire results

The questionnaire results showed that a majority of the respondents used the library resources. Most of the respondents were of the view that the UKZNP Library resources were very important and they were very dependent on the resources for their research. The most useful electronic databases were EbscoHost, JSTOR, the Library Catalogue, Sabinet and African Journal Online. Recommendations were also made by the doctoral students in terms of improving the library services.

4.6 Subject librarians interview results

The subject librarians' interview was conducted with five subject librarians who attend to students in the College of Humanities, according to their areas of specialty and job description. Amongst the five subject librarians, four were females and one male.

4.6.1. Biographical information of the subject librarians

The first question on the interview schedule asked for personal information on the respondents which included their, gender, age, qualification, followed by how long they had been working in the library as a subject librarian and how long they had been a subject librarian for the College of Humanities.

As mentioned earlier four out of the five subject librarians were female and one was a male. Their age ranged from between 32 to 52 years. In terms of their qualifications, the highest was a doctoral degree, while two had master's degrees in Information Studies. One was registered for a master's degree in Information Studies with the UKZNP campus. While the last subject librarian had an honour's degree in Information Science.

With regards to how long they had been subject librarians, one out of the five subject librarians had been a subject librarian for 30 years, another for 15 years, followed by nine years, four years and the least length of time just two years. In terms of being subject librarians in the College of Humanities,

the first had been a subject librarian for nine years, the second six years, the third three years, while the fourth and the fifth subject librarians had been with the College of Humanities for two years respectively.

4.6.2 Alerting doctoral students about new library resources that were available in their field

Two (40.0%) out of five subject librarians confirmed and mentioned that the library does alert doctoral students mostly through email and face-to-face contact about new resources. While the other three said “No” and provided the following reasons: They do not know who the doctoral students are besides the postgraduate students. Secondly, it depends on the subject area that was available and that they did not generally send emails to students.

4.6.3 Offering of training on how to access and use information resources in the library

All five subject librarians (100%) answered “Yes” to the question, and the training offered included: how to access information from off campus/remote access; accessing the different databases; library website; advanced literature searching; academic information; and the use of Endnote. Furthermore, such training usually includes all postgraduate students starting from honours, masters, and doctoral students and was not specifically for doctoral students alone. Most times such training started from the basics said three out of five subject librarians, and it depended on the information and computer literacy of the student(s). Training was influenced by the student’s background. For example, if the student(s) were from UKZN, they would be familiar with the library environment. But when the student(s) were from outside of UKZN it becomes complex, in the sense that they would be taught how to access information from the databases right from the basics. Usually, training takes place at the UKZNP Library at the beginning of each semester.

4.6.4 Availability of resource guides in the library for doctoral students to use and search for information they need

All five subject librarians (100%) answered “Yes” to the question that resource guides were available for students, but not specifically for doctoral students. Availability of resource guides could be found in the following areas of the UKZNP Library:

- Electronic copies of resource materials were available online via the Library website.

- Printed copies of resource materials were available as pamphlets on the ground floor and on the billboard of the UKZNP Main Library.
- Other printed copies were also available on the first floor of the Library where the periodicals are placed.
- Printed copies are also available by the door of each subject librarian office, for easy access for students at any time.
- There was also a poster guide on how to search for information on journals and books. For example on the first floor, there was a subject guide for periodicals, one for finding specific journal titles and another for finding journal articles. While on the second floor there were subject guides for books in printed form in different subject areas.

4.6.5 Activities or services performed to assist doctoral students

The subject librarians listed activities or services they performed to assist postgraduate students and not doctoral students specifically. These included:

- Training students on how to independently search for material/information on the databases via UKZN for their proposal and their entire research project.
- Training students on how to reference their work properly.
- Training students on how to create an Endnote library for comprehensive referencing of cited works in their individual theses and dissertations.
- Teaching students on how to use the printers and photocopiers.

Most of these training activities or services provided by the librarians are either done on a one-on-one basis, through group training sessions or telephonically.

4.6.6 Problems encountered by doctoral students when using the library services

Four (80%) out of the five subject librarians said “No” to the question that doctoral students do not encounter problems with the library services, based on the following reasons provided:

- One of the female librarians stated she had not been informed of any problems encountered by doctoral students’ usage of interlibrary loan services.
- The second said the doctoral students were well trained on the resources of the library and so they do not to encounter any problems.
- While the third said doctoral students are aware of the library resources so they do not encounter any problems.

- The last of the four female librarians said that doctoral students had not encountered any problems so far that she was aware of.

4.6.7 Problems encountered by doctoral students when using the library resources

Four (80%) librarians answered “Yes” to the question while one (20%) answered “No” with reason(s). The problems encountered by doctoral students according to the four subject librarians were:

- Students were not computer literate but only had a basic understanding of the technology. For example, how to construct a search that would yield the best results on the UKZN databases.
- Students also do not know how to begin the search process when searching for information.
- Students had not sorted out the login before trying to use the off-campus access. At times it could be electronic access that has been denied.
- Links sometimes were not working due to incorrect information therefore the problem was on the library website.
- Students did not understand that full-text of the material sourced is available online; while at other times it may be that there was no full-text as some journals were unavailable.
- Students were not familiar with the UKZN services/databases, since some students are new to UKZN.

4.6.8 The information needs of doctoral students compared to other students

In response to the question, all five (100%) subject librarians answered “Yes” with the following responses.

- The information needs of doctoral students were quite different and of greater depth than the other users of the library in the sense that they were researchers who added to the existing body of knowledge and as such wanted to obtain search results that were clear and meaningful to their study.
- Their search queries were more advanced and if they were reviewing literature they wanted to compare and contrast with other scholars’ work. While with the other users this was not the case as they mostly use the library for assignment purposes. In addition, PhD queries are more in depth as they have to dig deeper into literature in their different areas of research.

- Doctoral students are seen as specialists in their different disciplines in that they have specific knowledge of what they are searching for from the databases. This eventually is time consuming for both themselves and the subject librarians.
- Their needs are different in that sometimes they search for materials/resources that are not readily available in the UKZN databases. Other times they are off-campus and the resources are not accessible. This happens particularly to part-time students from other countries.

4.6.9 Doctoral students ability to use library resources compared to other students

Four (80%) out of five said “Yes” to the question. Two (40%) of the four doctoral students’ abilities were different because as researchers they know exactly what they were looking for, since they needed specific information for their research and they also know what was relevant to their study.

While the other two subject librarians said their abilities could be different, depending on what they were exposed to, for example, if they were not computer literate before coming to embark on their PhD programme they would have to be trained until they were able to search on their own for material, using the computers and the internet for their research.

However, one (20%) of the five subject librarians said both “Yes and No” at the same time. On the grounds that doctoral students are not different from other library users in the sense that they may have been out of studying for a while before coming to do their doctorate. Also their home country’s libraries resources may not have been as well resourced as the UKZN Library. In terms of “Yes” the doctoral students tend to narrow their focus so they are often not aware of the broader range of sources available for them to use.

4.6.10 The ability of the doctoral students to use the library’s resources

One (20%) of the subject librarians rated the doctoral students ability as “very good” without further explanation. While three (60%) of the subject librarians rated the students’ ability as “good” with the explanation that students are able to search and work independently on their own. Finally, one (20%) subject librarian rated the students’ ability as “poor” with the explanation that students rely heavily on the subject librarians.

4.6.11 The challenges doctoral students faced compared to other students

All five (100%) subject librarians responded “Yes” to the question, of which, one (20%) of the five subject librarians said her “Yes” response had to do with the problem of electronic access to the UKZN databases, such as poor connectivity and broken links which presented challenges to students.

Doctoral students work for long periods of time, often for three years and more. While for the other students their searching was just for the assignments they write and submit. Such students also have challenges with searching while trying to source materials in the Library. One (20%) of the subject librarians said doctoral students may face many kinds of challenges because of their different areas of study, and the nature of the research topic.

While the rest of the subject librarians who also responded “Yes” provided the following reason. Sometimes the students do not know how to use the UKZNP Library resources especially the electronic databases. This automatically means they have to be trained on how to effectively make use of the electronic databases for their research, even when they are away from the university environment.

Furthermore, another challenge doctoral students may encounter was that some of them have been out of the university for a while and so they may not be computer literate and at the same time technologically inclined. This would definitely be a challenge to them and so they needed to undergo online information training in order to be able to search for material for their studies continuously. They do not have time constraints as much as other students in their undergraduate studies or honours and masters, since doctoral students have three years full-time or five years part-time to complete their studies.

4.6.12 Doctoral students requesting help from subject librarians

All five (100%) of the subject librarians answered “Yes” to the question. A follow-up question was asked requesting what the students asked for help with. Out of the five subject librarians, the oldest in the profession said doctoral students ask for help with the following:

- On how to build an Endnote library;
- On how to do their referencing properly; and

- How to source information electronically and also print resources as well as digital theses.

However, the other four (80%) subject librarians said the doctoral students ask for help in the following areas:

- On how to search for information on UKZNP databases. This occurs where they (doctoral students) do not have access to them;
- On how long it takes for interlibrary loan to deliver their order/request; and
- How to work with Microsoft Word and Excel on the computers.

A further follow-up question was asked on how often the doctoral students asked for help. The subject librarians said it varied depending on the doctoral students' information needs at the time. Sometimes help was sought once a week and at other times it occurred regularly when they came for assistance throughout the month. For example, they came at the beginning of their research work and towards the end of their research work. Other times it was not regular but they come during the university holidays in December and June and during the Easter holidays for help.

4.6.13 Doctoral students making appointments before coming for assistance

Three (60%) out of the five subject librarians said "Yes" the doctoral students did make appointments to see them for assistance, and that they booked appointments sending emails, by phoning, and sometimes they liaised with their department and their department in turn would book appointments with the subject librarians for the doctoral students to meet with them.

Besides the making of appointments, they also came to meet with the subject librarians on one-on-one basis. The reason for this was that most of them came from outside the country. However, one of the subject librarians said "Yes" and "No" at the same time. According to her, sometimes they booked appointments, by email and phone. Phoning was the most common way of booking appointments. At other times they did not book, and just arrived at the office. The last subject librarian said "No" giving the reason that students did not book because she did not keep appointments and she attended to the students at anytime they approached her for assistance.

4.6.14 Library resources doctoral students used the most

According to the subject librarians, the most used resources were the OPAC (Library Catalogue), Electronic databases/resources, Materials (Books and Journals) and Theses and Dissertations.

4.6.15 Reasons why these resources were used the most by doctoral students

From the subject librarians' point of view, the doctoral students used the four library resources listed above the most due to the following reasons:

- They used all these resources because of their in-depth searches for their research project.
- They were searching for information that related to their different research topics.
- Electronic resources provided them with freedom to access any materials that were available electronically and from anywhere.
- Electronic resources were much simpler to access and use on the spot unlike the print resources that one must use in the library.
- Most research is reflected in journals, and if full-text is available, it could be downloaded electronically.

4.6.16 Improvements the library can make to the services it offers doctoral students

Recommendations made by all five (100%) subject librarians on how to improve the services the UKZNP Library offers to doctoral students were as follows:

- The library needs to do a survey and assess what the needs of doctoral students are and from there the Library would know how to improve its services;
- Provide a profile of each doctoral student in the Library for ease of assistance to them.
- More formal contact should be made with the doctoral students;
- There should be a focus on specific training for the doctoral students like Endnote, research methodology programmes, and the search process using the databases;
- Research commons should be provided with individual space for the doctoral students with a staff member attending to them;
- More photocopiers, colour printers and scanners should be provided for use in the library;
- Personal laptops should be given to each registered doctoral student; and
- Finally, more outreach on what the library has to offer students should be provided.

4.6.17 Summary of subject librarians interview results

The results of the subject librarians' interviews on the use of library resources by doctoral students in the College of Humanities indicated that doctoral students consulted subject librarians and attended training as the need arose. The services offered and problems encountered when using the library resources were all discussed. Suggestions were made by the librarians on how best to improve the library services to doctoral students.

4.7 Summary of the chapter

This chapter presents the results of the study on the use of library resources by doctoral students in the College of Humanities, of the UKZN, Pietermaritzburg Campus. Questionnaire and interview results display their demographic data and their use of library resources as researchers that add to knowledge. Above all recommendations were also suggested by the respondents to overcome the challenges faced by the doctoral students when using the library and how to improve on the library services to doctoral students.

Chapter 5

Discussion of the results

5.0 Introduction

This chapter discusses the findings of the study in relation to the key research questions as stated in Chapter One. References to previous studies reviewed in the literature will be referred to. The purpose of this present study was to investigate the use of library resources by doctoral students of the UKZN, College of Humanities, Pietermaritzburg Campus. Therefore the discussion in this chapter follows the sequence of the key research questions of the study.

5.1 Revisiting the key research questions of the study

The study attempted to answer the following key research questions regarding the use of library resources by doctoral students:

1. To what extent did doctoral students of the College of Humanities, Pietermaritzburg campus use library resources?
2. What types of library resources did doctoral students of the College of Humanities, Pietermaritzburg campus use?
3. What were the factors that influenced doctoral students' use of library resources?
4. How competent were doctoral students in using the different library resources?
5. What challenges did doctoral students face in their use of library resources?
6. What suggestions did doctoral students have on how to improve on the services provided by the library?

5.2 To what extent did doctoral students of the College of Humanities, Pietermaritzburg Campus use library resources?

This research question encompasses the overall purpose of the study. The findings of the study indicated that the extent of use of library resources by doctoral students was based on the importance of the library resources for the doctoral students' studies. Therefore 77 (78.6%) respondents indicated that their extent of use of library resources was very important to their research, while 17 (17.3%) said it was important to their research. More so, the study established the extent of use of library resources which had to do with the issue of the students' dependence on the resources. Sixty

(61.2%) respondents said their extent of use of the library resources was because they were very much dependent on the resources of the library, while 31 (31.6%) said they were somewhat dependent.

Furthermore, the study also found that the extent of use of the library resources by some doctoral students had not changed by 22 (23.7%) students, and 50 (53.8%) students said they used the resources of the library more for their research as doctoral students.

From the subject librarians' interviews the study found that doctoral students used all the resources in the library because of their in-depth search for information to aid their research projects. This showed that the UKZNP Library had tried to keep up-to-date materials/resources in the library that would aid/assist the university community in carrying out their research studies effectively and efficiently.

In terms of the frequency of use of some library resources the study found that printed books and journal articles were used frequently by doctoral students with (43.6%) of the students using books and (44.3%) using journal articles on a daily basis. With regard to electronic database resources, the following databases were used daily: JSTOR (35.8%), Ebscohost (25.0%), Library Catalogue (15.7%), and African Journal Online (17.0%). The most useful/important electronic databases used by doctoral studies in the course of their research studies were: EbscoHost (32%), followed by JSTOR (19%), then Library Catalogue (18%), Proquest (12%), and Google Scholar and ScienceDirect (10%) each respectively. Also, in terms of access, the study found that doctoral students were able to access electronic databases to search for information via remote access (off campus) (56.7%), the library (47.8%), LAN (45.6%) and postgraduate rooms (40.0%).

Thus most of the students were accessing the electronic databases outside the library.

5.3 What types of library resources did doctoral students of the College of Humanities, Pietermaritzburg Campus use?

The UKZNP Library had made available different types of resources in the library for doctoral students and other users of the library. Therefore it is necessary to note that of the resources available in the UKZNP Library, respondents used the electronic databases the most (86.7%), followed by print materials (books and journals) (78.6%), followed by the interlibrary loan service

with (69.4%), and theses and dissertations (61.2%). In line with this study, Korobili, Tilikidou and Delistavrou's (2005) study on the factors affecting the use of library resources by faculty members in a higher educational institution in Thessaloniki, Greece, found that a majority of the faculty members used printed sources more than e-sources. Likewise Du and Evans (2011) found that respondents used and returned books, videos and other materials and equally (70%) used the interlibrary loan services.

Nsanzya's (2003) study which investigated the use of electronic library information resources for information searching and retrieval among academic staff at the Edgewood campus, University of Natal, found that 69% used the OPAC, while only 7% used both indexes/abstracts and the interlibrary loan service. However, Hadebe's (2010) study on use of electronic databases by masters students in the Faculty of Humanities, Development and Social Sciences at the UKZN, Pietermaritzburg Campus, found that 81.3% used the electronic databases. This shows that, in the current study students' use of electronic databases is higher than the two similar studies done before.

From the subject librarians' interview the study found the same library resources were used by the doctoral students which were the OPAC (library catalogue), electronic databases/resources, print materials (books and journals) and theses and dissertations. The reasons why these library resources were used by doctoral students were: (1) they used all these resources because of their in-depth search for information in their research project; (2) they were searching for information that related to their different research topics; (3) electronic resources provided them with freedom to access any materials that were available electronically and from anywhere; (4) print resources were much simpler to access and use on the spot; and (5) most research was found in journals, and if full-text was available, it could be downloaded electronically.

5.4 What were the factors that influenced doctoral students use of library resources?

From the findings of the present study it was discovered that different factors influenced doctoral students' use of library resources. These factors were: to read; to borrow materials; to consult with subject librarians; to search databases for information; to print/copy materials; to study and also to use interlibrary loan services for their research studies.

Of the resources listed above, the major influencing factors for doctoral students' use of the library resources was to borrow materials which were printed books and journal articles for their research studies (97.9%), while 52 (54.7%) used interlibrary loan services and 38 (40.0%) used the library to search the databases.

5.5 How competent were doctoral students in using the different library resources?

The majority (79.8%) of the students considered themselves to be competent users of the different library resources with particular reference to electronic resources. This could be as a result of the fact that 75 (75.8%) respondents attended training or orientation on the use of library resources. Only 16 (16.2%) considered themselves not competent for the following reasons: (1) lacked confidence when using the different library resources; (2) they lacked formal training; and (3) they required assistance when using the library resources. Students also complained of the slow speed when using the electronic resources which hindered their use. In contrast to the present study, is Okiki and Asiru's (2011) study on the use of electronic information sources (EIS) by postgraduate students in Nigeria and the factors influencing such use. The study found that the students used the electronic information sources and 70.78% of the students had formal training in the use of EIS while 29.22% did not have formal training in using the available electronic information sources of the school. Similarly, Oyewusi and Oyeboade's (2009) study on accessibility and use of library resources by undergraduates in a Nigerian University found that an influencing factor in the use of library resources was that the available resources in the library satisfied the students' academic research needs.

In Nsanzya's (2003) study, problems that hindered the respondents' competence in using the databases were identified and included: (1) lack information on available electronic information resources (96%); (2) lack of training on how to access and use the available electronic information resources (91%); and (3) lack of time to explore electronic information resources (61%). Also Ozoemelem's (2009) study on the use of electronic resources by postgraduate students of the Department of Library and Information Science of Delta State University, Abraka, Nigeria, found that the ICT skills of postgraduate students were low. From the subject librarians' interview it was established that doctoral students were competent users of the different library resources since their competency was graded as 'very good' and 'good' because they were able to search and work

independently. However, one subject librarian did grade the students as ‘poor’ because doctoral students relied heavily on the subject librarians for assisting them with the information search process.

5.6 What challenges did doctoral students face in their use of library resources?

Doctoral students faced quite a number of challenges in their use of library resources. This study found that 100% of the doctoral students indicated that the subject librarians were always very busy attending to students and sometimes were not available when needed. With regards to using print resources, the following reasons were given by respondents: (1) difficulty in locating books on shelves because they were misplaced/disorganized; (2) resources were not available yet they were found on the catalogue; (3) most print resources related to their studies were not current; (4) only a few copies of certain books were available; (5) books on reserve were given out for just one hour; (6) lecturers borrowed books for longer periods which made them hard to get hold of; and (7) there were too few books for too many students to use at the same time. With regard to the electronic databases the students provided the following reasons: (1) Important journals and books were not subscribed to for electronic use; (2) electronic databases were very slow to connect to when searching; (3) some electronic databases did not have full-text articles but only abstracts; (4) password constraints for remote access login; (5) students had to stand in long queues to use the computers; (6) students did not know how to use the electronic databases; and (7) selecting the right keywords was a challenge when using the electronic databases.

Similar to the findings of this study was Soyizwapi and Hoskins’ (2009) study on the use of electronic databases by postgraduate students at UKZNP Faculty of Science and Agriculture. The study found that over half of the students who used the electronic databases had limited off-campus access, while 26.3% had searching difficulties when using the electronic databases and 22.8% had problems logging-on and slow server connections. All these were equally seen as a challenge to the respondents in Soyizwapi and Hoskins’ (2009) study. Also in Hadebe’s (2010) study, similar findings were made where 53.1% of the students had password problems, 46.9% had limited off-campus access, 42.5% had difficulties in searching, while 29.2% had problems logging in and 25.7% had problems with slow connections to the server.

In terms of the interviews, subject librarians from the UKZNP Library however, mentioned the following challenges: (1) that students were out of schooling for a long time; (2) students were not computer literate and at the same time technologically challenged; (3) students did not know how to use the UKZNP Library resources, especially electronic databases; and (4) connectivity to UKZNP Library website off-campus was a problem together with password issues.

5.7 What suggestions did doctoral students have on how to improve on the services provided by the library?

The following suggestions were identified by doctoral students to improve the services provided by the UKZNP Library: (1) the students suggested there should be regular information literacy training programmes for doctoral students; (2) the library should extend the loan period to two months for doctoral students outside the country; (3) a research commons should be provided with a subject librarian to assist doctoral students; (4) there should be more computers with tutorials for doctoral students to use for their search process; (5) provision of more copies of regularly used books, for example, research methodology books should be made available in order to avoid long waiting periods; (6) more journals should be subscribed to; (7) materials should be placed in their right places on shelves; (8) emails should be sent to doctoral students about available resources in the library; (9) provision of relevant materials that cannot be received from the interlibrary loan service of the library; (10) library collections for doctoral students should be available in various schools; (11) special space should be provided for doctoral students in the library; (12) library staff should be approachable and helpful; (13) hours for the multimedia room usage for doctoral students should be increased; (14) interlibrary loan should be more effective by alerting students of the due dates on books; (15) students should be provided with the opportunity to recommend books on subject areas for the library; and (16) all necessary material for doctoral students should be placed on reserve shelves for easy access.

In line with the questionnaire results, the subject librarians also provided their input on how to serve the doctoral students better with the following suggestions: (1) surveys should be conducted to access the needs of doctoral students by the UKZNP Library services; (2) more training programmes should be provided; (3) more outreach to the university community on what the library has to offer doctoral students and other users should be done; (4) more computers, photocopiers, colour printers and scanners should be placed in the library; (5) a profile of each doctoral student should be kept in

the library to assist the doctoral students on their different areas of research; (6) personal laptops should be given to each doctoral student; and (7) a research commons should be provided to doctoral students with individual space to work on their research projects.

Thus, some of the suggestions provided by the doctoral students were similar to those of the librarians.

Having conducted the research, and based on the findings of the study, it was observed that:

- The use of the virtual library was more significant than the physical library by doctoral students;
- The UKZNP Library had played a significant role in assisting doctoral students in achieving its vision and mission statement by providing them with well-equipped library resources for their individual research studies;
- Using the library resources had provided most of the doctoral students with the knowledge of the UKZNP Library and its available resources.

5.8 Summary of the chapter

This chapter discussed the results of the findings, which were based on the key research questions of the study stated in Chapter One. The main areas discussed in this chapter included importance, dependency and the degree of usage of the UKZNP Library resources. In addition, the types of resources used by doctoral students were discussed, as well as the factors that influenced use of the library resources by doctoral students. Besides the doctoral students' competency to use the resources, the challenges they encountered while using the library resources was also discussed. Finally recommendations were made by the students and librarians in terms of improving the services to the doctoral students.

Chapter 6

Conclusion and recommendations

6.0 Introduction

The purpose of this study was to investigate the use of library resources by doctoral students in the College of Humanities, UKZN, Pietermaritzburg Campus. Based on the data presented in Chapter Four and interpreted in Chapter Five, this final chapter presents a summary of the findings, provides an overview, conclusion, recommendations and suggestions for further research.

6.1 Summary of the study

Chapter One provided an introduction and a brief background of the study. The rationale of the study was explained and the statement of the problem was highlighted. More so, the key research questions were stated as well as the broader issues. Key terms used in the study were defined. The principal theories and conceptual framework for the study were also discussed. The delimitations and limitations of the study were outlined.

In Chapter Two, various studies on the use of library resources were reviewed. These included the role of academic libraries in the provision of library resources, the purpose of academic libraries in institutions of higher learning, and the resources that are usually found in an academic library. The issue of information, and information needs of the doctoral students, library and information skills and competencies doctoral students are expected to have were also explained and the level of information literacy doctoral students ought to have before doing research. The chapter was concluded by discussing other studies that were related to the current study, done locally and internationally, on both postgraduate and undergraduate students' use of different library resources.

Chapter Three discussed the methods which the study adopted to collect data to answer the research questions. The approach the study took was the triangulation method where both qualitative and quantitative data were collected and used to answer the research question. The researcher used a one-on-one interview method with subject librarians at the UKZNP Library and a self-administered questionnaire for doctoral students as data collection instruments. The quantitative data was analyzed using SPSS version 21, while the qualitative data was analyzed using thematic content analysis.

Chapter Four presented the results of the study which set out to evaluate the use of library resources by doctoral students in the College of Humanities at the UKZN, Pietermaritzburg Campus. The results of the study adequately answered the key questions of the study. The results of the questionnaire offered background information of the respondents and their use of library resources as well as the subject librarians' interview results. Suggestions/recommendations on how the library can improve its service to doctoral students were also discussed.

Chapter Five presented the findings of the study, in light of the key research questions the study attempted to answer. The results of the study showed the extent of use of library resources by doctoral students of the College of Humanities at the UKZN, Pietermaritzburg Campus. It also shows the challenges doctoral students encountered while sourcing information from the UKZNP library resources and suggestions on how best the library could serve them. Likewise the subject librarians' suggestions on how best the library would serve doctoral students were provided alongside those of the students.

6.2 Summary of the findings of the study

With regard to the extent of use of the library resources by doctoral students of the College of Humanities, Pietermaritzburg campus, the study found that doctoral students considered the library resources very important to their research studies, and the students were thus dependent on the library resources for their research studies. As doctoral students, their use of the library had increased. The extent of use of UKZNP Library resources by doctoral students was in line with the conceptual framework of the study which was Kuhlthau's model of the information search process (ISP), stage five, the information collection stage, wherein doctoral students used the library resources to collect information to assist them with their studies.

With regard to the types of library resources used by doctoral students of the College of Humanities, Pietermaritzburg campus, the study also found that doctoral students used the following resources: electronic databases; interlibrary loan service; OPAC (library catalogue); print materials (books and journals); the reference collection; consulted with the subject librarians and used the theses and dissertations. Among the many resources in the library, the most frequently used resources were the electronic databases followed by print materials which were books and journal articles and the interlibrary loan service.

In terms of factors that influenced doctoral students' use of library resources, the study found that the most influential factors were to borrow print materials (books and journal articles) for their research studies and to also use the interlibrary loan service of the library to request books and journal articles that were not available in UKZNP Library. Other factors were to search the electronic databases for research materials for their studies and also to read the information sources in the library.

With regard to how competent the doctoral students were in using the different library resources, the study found that more than half the doctoral students were competent users of the different library resources, probably because of the training offered to the doctoral students by the library. The subject librarians also agreed that doctoral students were competent users of the library resources since they regarded the students' competency as "very good" and "good" respectively. The students who were not competent users of the library resources argued that they were not competent as a result of a lack of formal training on how to search for information online.

In terms of challenges doctoral students face in their use of the UKZNP Library resources, the study also found that the doctoral students encountered the following challenges:

- Subject librarians were always very busy attending to students and sometimes not available when needed by doctoral students;
- For print materials, misplaced/disorganized books/journals on shelves made it difficult to locate what was needed;
- Too few books for many students to use at the same time;
- Materials sometimes were not readily available for loan;
- For electronic databases/resources, slow connections due to servers being down;
- E-journals and books were not subscribed to for electronic use;
- Selecting the right keyword to search databases;
- Passwords being an issue when logging onto the library website; and
- Some of the databases did not have full-text articles but abstracts only.

In terms of suggestions as to how UKZNP Library could improve their service for the doctoral students, the following suggestions were provided:

- Information training programmes should be more regular for doctoral students;

- Emails should be sent to doctoral students about available resources in the library;
- More journals should be subscribed to;
- Materials should be shelved in their right place at all times;
- The library needs to do a survey and assess what the needs are of doctoral students to know how to improve its services;
- Provide a profile of each doctoral student in the library for ease of assistance to them;
- More formal contact should be made with the doctoral students;
- More focus should be made on specific training for the doctoral students like Endnote, research methodology programmes, and the search process using the databases;
- Provision of more photocopiers, colour printers and scanners to be used in the library; and
- More outreach information on what the library has to offer both undergraduate and postgraduate students.

Many of the suggestions and challenges provided by the doctoral students were also provided by the subject librarians. Hence the results of the questionnaire were supported by the results of the interview.

From the researcher's point of view the following suggestions are made:

- The UKZNP library administrators and decision-makers use the results of this study to improve the services of the library so that it can better serve both students, users and staff in the future; and
- The study suggests that training should be made compulsory for both students and staff so they could use the library resources better, especially the online sources.

6.3 Conclusion

The result of the study has revealed that doctoral students of the College of Humanities at the University of KwaZulu-Natal, Pietermaritzburg Campus, did use the UKZNP Library resources for their research study. However, there were some obstacles that inhibited the use of the library resources which included a lack of training, skill, and competency as to how to use the resources. There were also password issues, slow connections due to limited server capacity, and using the right keywords when searching. In all, the study found that the resources of the UKZNP Library were used because they were very important to the doctoral students.

6.4 Recommendations

Based on the findings of the study, the following recommendations are made in order to assist the UKZNP Library in its decision-making processes concerning the acquisition of, or subscription to, library resources and the improvement of library services to doctoral students:

- The UKZNP Library should conduct information literacy training programmes regularly for doctoral students;
- Interlibrary loan services should be more effective by alerting students of the due dates on books;
- Provide students with the opportunity to recommend books on subject/topic areas that are important for their research studies;
- Subscribe to more journals;
- Ensure that materials are shelved in their right place at all times;
- Have a fully functioning research commons with expert assistance for postgraduate students;
- Conduct a survey to assess the needs of doctoral students with the aim of improving the service to doctoral students;
- Compile a profile of each doctoral student registered for the library to assist in meeting their individual information needs;
- Focus on specific training programmes for the doctoral students like Endnote, research methodology approaches, and the search process using the databases;
- Provide a research commons with individual space for the doctoral students with a staff member to assist them;
- Provide photocopiers, colour printers and scanners; and
- Provide more outreach on what the library has to offer doctoral students.

6.5 Suggestions for further research

The following suggestions relate to other research studies that should be conducted at the UKZNP:

- A similar study on the use of library resources by doctoral students in other Colleges of the UKZN, Pietermaritzburg Campus;
- A similar study on the use of library resources by masters students in other Colleges of the UKZN, Pietermaritzburg Campus;

- A similar study on the use of library resources by academic staff members of the UKZN, Pietermaritzburg Campus;
- A similar study on the use of library resources could be done on other campuses of the UKZN, as well as other universities which have standard libraries.

Finally, the study fulfilled its original purpose to investigate the use of library resources by doctoral students in the College of Humanities, UKZN, Pietermaritzburg Campus by determining their extent of use of the resources, the factors that influenced such use, the competency of the students to use the resources, and the challenges and suggestions on how to improve the services of the library.

List of works cited

Abbott, M. 1989. Towards an understanding of the meaning of the word “use” in the phrase “use of literature”. M.I.S. thesis. Pietermaritzburg: University of Natal.

Aitchison, J. M. H. 1998. Access to books and journal articles by postgraduate students on a course-work master’s programme in Information Studies at the University of Natal, Pietermaritzburg. M.I.S. thesis. Pietermaritzburg: University of Natal.

American Library Association. 2012. @ Your library the campaign for America’s Libraries. What’s at the library? Resources. <http://www.atyourlibrary.org/what/resources> [Accessed 22/05/2012].

Babbie, E. and Mouton, J. 2001. *The practice of social research*. South African ed. Cape Town: Oxford University Press.

Backhouse, J. P. 2009. Doctoral education in South Africa: models, pedagogies and student experiences. PhD thesis. Johannesburg: University of the Witwatersrand.
<http://wiredspace.wits.ac.za/bitstream/handle/10539/7475/Backhouse%20Doctoral%20Education%20in%20South%20Africa.pdf?sequence=1> [Accessed 16/08/2012].

Bailey, K. 1987. *Methods of social research*. London: Collier Macmillan.

Birley, G. and Moreland, N. 1998. *A practical guide to academic research*. London: Kogan Page.

Brown, R. A. 1971. History of the library Part 1, supplement no 8 and no 9, [Library] bulletin [Pietermaritzburg], October and November, p. 1.

Bryman, A. 2004. *Social research methods*. 2nd ed. New York: Oxford University Press.

Buchanan, N. 2008. A history of the University of Natal Libraries, 1910 – 2003. PhD thesis. Pietermaritzburg: University of KwaZulu-Natal.

Campbell, J. D. 2006. Changing a cultural icon: the academic library as a virtual destination. *Educause Review* 41(1): 16-31.
<http://www.educause.edu/EDUCAUSE+Review?EDUCASEReviewMagazineVolume41/Changing> [Accessed 01/03/2012].

Case, D. O. 2002. *Looking for information: a survey of research on information seeking, needs and behaviour*. London: Academic Press.

Chirra, R. and Madhusdhan, M. 2009. Use of electronic journals by doctoral research scholars of Goa University, India. *Library Hi Tech News* 26(10): 12-15.

<http://ww.emeraldinsight.com/journals.htm?issn=0741-9058&volume=26&issue=10> [Accessed 20/2/2012].

Chowdhury, G. G. and Chowdhury, S. 2011. *Information users and usability in the digital age*. London: Facet Publishing.

Darch, C. and Underwood, P. 1999. Dirt road or yellow brick superhighway? Information and Communication Technology in academic libraries of South Africa. *Library Hi Tech* 17(3): 285-297.

South Africa. Department of Education. 2007. Higher education qualification framework. Pretoria: Department of Education.

Dictionary.com. 2012. Use. <http://dictionary.reference.com/browse/use> [Accessed 6/3/2012].

Du, J. T. and Evans, N. 2011. Academic library services support for research information seeking. *Australian Academic and Research Libraries* 42(2): 103-120.

<http://www.ebscohost.com/ehost/detail?vid=7&hid=14&sid=37275629-9520-4d2c-a64C-8c4659b5c024%> [Accessed 17/07/2012].

Feather, J. and Sturges, P. (eds). 2003. *International encyclopedia of information and library science*. 2nded. New York: Routledge.

Gastel, B. 2012. Preparing the literature review section of a dissertation. Texas: A&M University. PowerPoint Presentation. <http://www.authoraid.info/resource-library/preparing-the-literature-review-section-of-a-dissertation> [Accessed 06/03/2012].

Ge, X. 2010. Information-Seeking behavior in the digital age: a multidisciplinary study of academic researchers. *College and Research libraries* 71(5): 435-455.

<http://www.ebscohost.com/ehost/detail?vid=8&hid=14&sid=37275629-9520-4d2c-a64C-8c4659b5c024%> [Accessed 18/07/2012].

- Gessner, G. C., Jaggars, D. E., Rutner, J. and Tancheva, K. 2011. Supporting humanities doctoral students: a collaborative project between Cornell University Library and Columbia University Libraries. *Council on Library and Information Resources*.
<http://2cul.org/sites/default/files/2CUL%20Supporting%20Humanities%20Doctoral%20Students%20Success%20REV%20Website%20version.pdf> [Accessed 06/07/2012].
- Griffiths, J. R. and Peter, B. 2005. Students searching behavior and the web: use of academic resources and Google. *Library Trends* 53(4): 439-554.
<http://www.ideals.illinois.edu/bitstream/handle/2142/1749/Griffith>: [Accessed 15/06/2012].
- Hadebe, T. B. 2010. Use of electronic databases by masters students in the Faculty of Humanities, Development, and Social Sciences at the University of KwaZulu-Natal, Pietermaritzburg Campus. M.I.S thesis. Pietermaritzburg: University of KwaZulu-Natal.
- Hammersley, M. (ed). 1993. *Social research: philosophy, politics and practice*. London: Open University Press.
- Haynes, E. B. 1996. Librarian-Faculty partnership in instruction. *Advances in Librarianship* 20: 191-222.
- Hopkins, W. G. 2008. Quantitative research design.
<http://www.sportsci.org/jour/0001/wghdesign.html> [Accessed 14/4/2012].
- Ikoga-Odongo, R. and Mostert, J. 2006. Information seeking user behaviour: a conceptual framework. *South African Journal of Libraries and Information Science* 72(3): 145-158.
- Isaac, G. G. B. W. 2002. Information literacy among form five students at the four government senior secondary schools in Gaborone, Botswana. M.I.S. thesis. Pietermaritzburg: University of Natal.
- Keenan, S. 1996. *Concise dictionary of library and information science*. United Kingdom: Bowker-Saur.

Kimberly, B. K. and Orr, G. J. 2003. Trends in distant student use of electronic resources: a survey. *College and Research Libraries* 64(3): 176-191. <http://crl.acrl.org/content/64/3/176.full.pdf+html> [Accessed 16/02/2012].

Korobili, S., Tilikidou, I. and Delistavrou, A. 2006. Factors that influence the use of library resources by faculty members. *Library Review* 55(2): 91-105. <http://www.emeraldinsight.com.ezproxy.ukzn.ac.za:2048/search.htm?st1=library+review&ct=jnl&ec=1&bf=1&sr1=factors%20that%20influence%20the%20use%20of%20library%20resources%20by%20faculty%20members> [Accessed 20/2/2012].

Kothari, C. K. 2004. *Research methodology: methods and techniques*. 2nd ed. New Delhi: New Age International.

Kuh, G. D. and Gonyea, R. M. 2003. The role of the academic library in promoting student engagement in learning. *College and Research Libraries* 64(4): 256-282. <http://crl.acrl.org/content/64/4/256.full.pdf+html> [Accessed 03/03/2012].

Kuhlthau, C. C. 1989. Information search process: a summary of research and implications for school library media programs. *School Library Media Quarterly* 18(1): 1-8.

Kuhlthau, C. C. 1994. *Teaching the library research process*. 2nd ed. London: Scarecrow Press.

Kuhlthau, C. C. 2004. *Seeking meaning: a process approach to library and information services*. 2nd ed. London: Libraries Unlimited.

Kuhlthau, C. C., Turock, B. J., George, M. W. and Belvin, R. J. 1990. Validating a model of the search process: a comparison of academic, public and school library users. *Library and Information Science Research* 12(1): 5-31.

Merriam-Webster online dictionary. 2012. Use. <http://www.merriam-webster.com/dictionary/use/> [Accessed 6/3/2012].

Mouton, J. and Marais, H. C. 1990. *Basic concepts in the methodology of the social sciences*. Pretoria: Human Sciences Research Council.

Natal University College, 1911. Calendar, Pietermaritzburg: [The College], p. 101.

- Nitecki, D. A. 1996. Changing the concept and measure of service quality in academic libraries. *Journal of Academic Librarianship* 22(3): 181-190.
- Nkosi, D., Leach, A. and Hoskins. R. 2011. Knowledge and use of library resources by academic staff at the University of KwaZulu-Natal, Pietermaritzburg (UKZNP) campus. *Innovation: Journal of Appropriate Librarianship and Information Work in Southern Africa* Jun 42: 54-78.
- Nsanzya, B. M. K. 2003. An investigation into the use of electronic library information resources for information searching and retrieval among academic staff at the Edgewood campus, University of Natal. Pietermaritzburg. M.I.S thesis. Pietermaritzburg: University of Natal.
- Okiki, O. C. and Asiru, S. M. 2011. Use of electronic information sources by postgraduate students in Nigeria: influencing factors. *Library Philosophy and Practice*
<http://www.webpages.uidaho.edu/~mbolin/okiki-asirupdf> [Accessed 04/04/2012].
- Owen, F. and Jones, R. 1994. *Statistics*. 4th ed. London: Pitman.
- Oyewusi, F. O. and Oyeboade, S. A. 2009. An empirical study of accessibility of library resources by undergraduates in a Nigerian State University of Technology. *Library Philosophy and Practice*
<http://www.webpages.uidaho.edu/~mbolin/oyewusi-oyeboade.htm> [Accessed 04/04/2012].
- Ozoemelem, O. A. 2009. Use of electronic resources by postgraduate students of the department of Library and Information Science of Delta State University, Abraka, Nigeria. *Library Philosophy and Practice* <http://www.webpages.uidaho.edu/~mbolin/obuh-alex.htm> [Accessed 04/04/2012].
- Palsdottir, A. 2010. The connection between purposive information seeking and information encountering: a study of Icelanders' health and lifestyle information seeking. *Journal of Documentation* 66 (2): 224-244.
- Phillips, E. M. and Pugh, D. 2005. *How to get a PhD: a hand book for students and their supervisors*. 4th ed. Berkshire: England: Open University Press.
- Pickard, A. J. 2007. *Research methods in information*. London: Facet Publishing.
- Powell, R. 1997. *Basic research methods for librarians*. 3rd ed. Greenwich: Ablex.

- Pretorius, C. E. 1995. An investigation into the impact of system migration on library staff. M.I.S diss. Pietermaritzburg: University of Natal.
- Prytherch, R. J. 2000. *Harrod's librarians' glossary and reference book: a directory of 9,600 terms, organizations, projects and acronyms in the areas of information management, library science, publishing and archive management*. 9th ed. Aldershot, Hants: Gower.
- Saunders, M., Lewis, P. and Thornhill, A. 2000. *Research methods for business students*. 2nd ed. Harlow, Essex: Pearson Education.
- Selltiz, C., Wrightsman, L. S. and Cook, S. W. 1976. *Research methods in social relations*. 3rd ed. New York: Holt, Rinehart and Winston.
- Smith, H. W. 1975. *Strategies of social research: the methodological imagination*. Englewood Cliffs N. J.: Prentice-Hall.
- Soyizwapi, L. and Hoskins, R. 2009. Use of electronic databases by postgraduate students in a University based Faculty of Science and Agriculture. *Innovation: Journal of Appropriate Librarianship and Information Work in Southern Africa* Jun 38: 94-117.
- Sproull, N. L. 1995. *Handbook of research methods: a guide for practitioners and students in the social sciences*. 2nd ed. London: The Scarecrow Press, Inc.
- Stilwell, C. 2010. Research into information behaviour in the South African context: a preliminary exploration and bibliography: 1980 to date. *Innovation: Journal of Appropriate Librarianship and Information Work in Southern Africa* Jun 40:1-33.
- Swain, D. K. 2010. Students' keenness on use of e-resources. *The Electronic Library* 28(4): 580-591. <http://www.emeraldinsight.com/journals.htm?issn=0264-0473&volume=28&issue=4&=t81oke19l85higmdrco3j1hui0> [Accessed 20/2/2012].
- Thody, A. 2006. *Writing and presenting research*. London: Sage Publications.
- UKZNP – See University of KwaZulu-Natal Pietermaritburg Library, 2012. Subject Librarians. <http://library.ukzn.ac.za/SubjectLibrarians772.aspx> [Accessed 6/03/2012].

University of Idaho. 2012. What is information literacy?
http://www.webs.uidaho.edu/info_literacy/ [Accessed 8/4/2012].

University of KwaZulu-Natal. 2012. University of KwaZulu-Natal libraries mission, vision and strategic goals, 2007 to 2011.
http://library.ukzn.ac.za/Libraries/pdf_library/Library_Strat_Plan_2007-2011.sflb.ashx [Accessed 4/4/2012].

Walter, E., Woodford, K. and Good, M. (eds.) 2008. *Cambridge Advance Learner's Dictionary*. 3rd ed. Cambridge University Press.

Webb, E. J., Campbell, D. T., Schwartz, R. D. and Sechrest, L. 1966. *Unobtrusive measures: nonreactive research in the social sciences*. Chicago: Rand McNally.

Wedgworth, R. 1993. *World encyclopedia of library and information services*. 3rd ed. Chicago: American Library Association.

White, S. and Stone, G. 2010. Maximizing use of library resources at the University of Huddersfield. *Serials* Jun 23(2): 83-90. <http://uksg.metapress.com/content/0u285658m2832775/fulltext.pdf> [Accessed 01/03/2012].

Appendix 1: Cover letter

Dear Respondent,

INVITATION TO PARTICIPATE IN A SURVEY

My name is Tamunotonye I. Idoniboye-Obu. I am an MIS student at the University of KwaZulu-Natal, Pietermaritzburg Campus, South Africa. I wish to invite you to participate in a survey I am carrying out as part of the requirements for the Master of Information Studies degree. The aim of this survey is to gather information from doctoral candidates in the College of Humanities within the University of KwaZulu-Natal Pietermaritzburg Campus on their use of library resources.

This study aims to investigate the extent and effectiveness of doctoral students' use of library resources as well as the factors that influence their use of library resources. The study also aims to determine and assess the views and opinions of doctoral candidates as to how the library can better serve them.

Participation is voluntary; you may refuse to participate or withdraw from the study at any point without having to explain your *reasons* for such withdrawal or non-participation. The School of Social Sciences within the College of Humanities, University of KwaZulu-Natal will maintain confidentiality and anonymity of records identifying you as a participant.

I want to acknowledge the time and effort it would take to participate in this study and wish to express my gratitude in advance for your participation and contribution to the completion of the study.

You are requested to kindly answer all questions to the best of your ability.

If you have any questions or concerns about participating in this survey, please feel free to contact me or my supervisor by email or telephone.

Supervisor Details:

Dr Ruth Hoskins,
Information Studies,
School of Social Sciences,
University of KwaZulu-Natal,
Pietermaritzburg Campus
Private Bag X01
Scottsville 3209
Tel: 033 260 5093
Email: hoskinsr@ukzn.ac.za

Researcher's Details

Tammy Idoniboye-Obu
Information Studies,
C/o Mr. SA Idoniboye-Obu,
School of Social Sciences,
University of KwaZulu-Natal,
Pietermaritzburg Campus
Private Bag X01
Scottsville 3209
Cell: 0729275707
Email: 209510957@ukzn.ac.za

Thank you for your kind cooperation.

Yours sincerely,

Tamunotonye (Tammy)

Appendix 2: Informed Consent form for survey participants

INFORMED CONSENT FORM

Title of study:

The use of library resources by doctoral students of the University of KwaZulu-Natal, College of Humanities, Pietermaritzburg Campus

I,, hereby consent to participate in the study as outlined in the document about the study/ as explained to me by the researcher.

I acknowledge that I have been informed of the purpose of this survey. I am aware that participation in the study is voluntary and I may refuse to participate or withdraw from the study at any stage and for any reason without any form of disadvantage. I acknowledge that I understand the contents of this form and freely consented to participating in the study.

Participant

Signed..... Date:

Researcher

Signed Date:

Appendix 3: Doctoral students' questionnaire

Case No: _____

Questionnaire on the use of library resources by doctoral students in the College of Humanities at the University of KwaZulu-Natal, Pietermaritzburg Campus

Instructions: Please complete the following questionnaire by clearly ticking or crossing the relevant boxes or by filling in the required information.

Section A: Background information on respondents

1. Degree registered for _____
2. School:
 - 2.1 The School of Applied Human Sciences []
 - 2.2 The School of Arts []
 - 2.3 The School of Education []
 - 2.4 The School of Religion, Philosophy and Classics []
 - 2.5 The School of Social Sciences []
3. Cluster _____
4. Discipline _____
5. Year of Study _____
6. Nature of study:
 - 6.1 Full Time []
 - 6.2 Part Time []
7. Gender:
 - 7.1 Female []
 - 7.2 Male []
8. Age Range
 - 8.1 21 – 25 []
 - 8.2 26 – 30 []
 - 8.3 31 – 35 []
 - 8.4 36 – 40 []
 - 8.5 41 – 45 []
 - 8.6 46 – 50 []
 - 8.7 51 – 55 []
 - 8.8 56 – 60 []
 - 8.9 Over 60 []
9. Race
 - 9.1 Black []
 - 9.2 Coloured []
 - 9.3 Indian []
 - 9.4 White []
 - 9.5 Other, (Please specify) _____
10. Nationality _____
11. Do you own a personal computer
 - 11.1 Yes []
 - 11.2 No []

Section B: Use of Library resources

12. Do you use the UKZNP Library?

- 12.1 Yes 12.2 No
12.3 If 'No', please explain why

.....
.....
.....
.....

13. On average, how often do you physically visit the UKZNP Library?

- 13.1 Daily 13.4 Monthly
13.2 Weekly 13.5 Rarely
13.3 Fortnightly 13.6 Never

14. Why do you visit the Library (Tick all those that apply to you).

- 14.1 To read 14.5 To print/copy materials
14.2 To borrow materials 14.6 To study
14.3 To consult a librarian 14.7 To use interlibrary loan
14.4 To search databases
14.8 Other, (please specify)

.....
.....
.....
.....

15. How important is the UKZNP library to your studies?

- 15.1 Very important 15.2 Important
15.3 Not so important

16. How dependent are you on the UKZNP Library for the research you conduct?

- 16.1 Very dependent
16.2 Somewhat dependent
16.3 Not dependent

17. Please provide reasons for your answer above

.....
.....
.....
.....

18. How has your use of the UKZNP Library's resources changed over the past few years?

- 18.1 I use the UKZNP Library resources more
18.2 I use the UKZNP Library resources less
18.3 My use of the UKZNP Library's resources has not changed

19. Which of the following library resources do you make use of (Please tick all those that apply to you).

- 19.1 OPAC (Library Catalogue)
19.2 Electronic databases
19.3 Subject librarians
19.4 Reference collection
19.5 Theses and dissertations
19.6 Print Materials (Books and Journals)
19.7 Interlibrary Loan

19.8 Other, (please specify)

.....
.....
.....
.....

20. Have you attended any training or orientation on the use of Library resources?

20.1 Yes []

20.2 No []

20.3 If 'No', please explain why

.....
.....
.....
.....

21. If 'Yes' to question 20, how would you rate the training or orientation that you have received from the Library?

21.1 Highly satisfactory []

21.3 Satisfactory []

21.2 Less satisfactory []

21.4 Not satisfactory []

22. Overall, are you satisfied with the services provided by UKZNP library?

22.1 Yes []

22.2 No []

22.3 If 'No', please explain why

.....
.....
.....
.....

23. Do you consult with the Subject Librarians?

23.1 Yes []

23.2 No []

23.3 If 'No' please explain why

.....
.....
.....
.....

24. If 'Yes', to question 23, have you ever asked for help from subject librarians on how to use the electronic resources?

24.1 Yes []

24.2 No []

25. If 'Yes', to question 23, have you ever asked for help from a subject librarian on how to locate material in the library?

25.1 Yes []

25.2 No []

26. If 'Yes', to question 23, have you ever asked for help on how to use the printers/copiers in the library?

26.1 Yes []

26.2 No []

27. Overall, are you satisfied with the services provided by subject librarians at UKZNP library?

27.1 Yes []

27.2 No []

27.3 If 'No', please explain why

.....

28. What are the major challenges you experience when consulting with subject librarians of the UKZNP Library?

.....

29. Do you use print resources?

29.1 Yes []

29.2 No []

29.3 If 'No', please explain why

.....

30. How important are the following print resources for your studies? (Please tick those that apply to you).

S/NO	Resources	Very important	Important	Not so important
1	Books			
2	Journals			
3	Newspapers			
4	Indexes and abstracts			
5	Reference materials e.g. dictionaries & encyclopaedias			
6	Other, (please specify)			

31. How often do you use the following print resources for your studies?

S/NO	Resources	Daily	2-4 times a week	Once a week	Once in 2 weeks	Once a month	Never
1	Books						
2	Journals						
3	Reference Materials						
4	Newspapers						
5	indexes and abstracts						
8	Other, (please specify).						

32. Overall, are you satisfied with the print resources provided by UKZNP Library?

32.1 Yes []

32.2 No []

33. What are the major challenges you experience in your use of print resources at the UKZNP Library?

.....

34. Were you familiar with electronic resources before you enrolled for your doctoral studies?

34.1 Yes []

34.2 No []

35. Have you used any of the electronic resources provided by the library?

35.1 Yes []

35.2 No []

35.3 If No, please explain why

.....

36. If 'Yes' to question 35, do you consider yourself to be a competent user of the library's electronic resources?

36.1 Yes []

36.2 No []

36.3 If 'No', please explain why

.....

37. If 'Yes', to question 35 above, which electronic resources have you used? (Please tick all those that apply to you)

S/No	Resources	Tick as applicable
37.1	Library catalogue	
37.2	African Journals Online	
37.3	Aluka Digital Library	
37.4	CSA Illuminia	
37.5	EbscoHost	
37.6	Emerald Insight	
37.7	ERIC	
37.8	JSTOR	
37.9	LexisNexis	
37.10	Popline	
37.11	Project Muse	
37.12	ProQuest	
37.13	SABINET	
37.14	ScienceDirect	
37.15	SilverPlatter	
37.16	Swets Wise	
37.17	Web of Knowledge	
37.18	Wilson Web	
37.19	Directory of Open Access Journals	
37.20	Library and Information Science Abstract (LISA)	
37.21	NEXUS: Current and Completed Research	
37.22	Other, (please specify)	

38. If 'Yes' to question 35 above, how often do you use the library electronic resources?

S/No	Resources	Daily	Weekly	Monthly	Never
38.1	Library Catalogue				
38.2	African Journals Online				
38.3	Aluka Digital Library				
38.4	Directory of Open Access Journals				
38.5	CSA Illuminia				
38.6	EbscoHost				
38.7	Emerald Insight				
38.8	ERIC				
38.9	JSTOR				
38.10	LexisNexis				
38.11	Library and Information Science Abstracts (LISA)				
38.12	NEXUS: Current and Completed Research				
38.13	Popline				
38.14	Project Muse				
38.15	ProQuest				
38.16	SABINET				
38.17	ScienceDirect				
38.18	SilverPlatter				
38.19	Swetswise				
38.20	Web of Knowledge				
38.21	Wilson Web				
38.22	Other, (please specify)				

39. From the above, please list the four most useful electronic databases for your doctoral studies.

- 37.1
- 37.2
- 37.3
- 37.4

40. Where do you access these electronic databases from (Please tick all those that apply to you).

- 38.1 Library []
- 38.2 Postgrad rooms []
- 38.3 LAN []
- 38.4 Remote access (Off-campus) []
- 38.5 Others, (please specify)

.....

41. Overall, are you satisfied with the electronic resources provided by UKZNP Library?

41.1 Yes []

41.2 No []

42. What are the major challenges you experience in your use of electronic databases at UKZNP Library?

.....
.....
.....
.....

43. Do you use the interlibrary loan service of the UKZNP Library?

43.1 Yes []

43.2 No []

43.3 If 'No', please explain why.

.....
.....
.....
.....

44. What recommendations would you suggest to the UKZNP Library to improve on services to doctoral students?

.....
.....
.....
.....

Thank you for your participation

Appendix 4: Subject librarian interview schedule

Subject librarians interview guide on the use of library resources by doctoral students in the College of Humanities, of the University of KwaZulu-Natal, Pietermaritzburg Campus.

1. Personal information on respondent

- a. Name.....
- b. Gender.....
- c. Age.....
- d. Qualification.....
- e. How long have you been working in this library as a subject librarian?
.....
- f. For how long have you been a subject librarian for the College of Humanities?
.....

2. Does the library alert doctoral students about new library resources that become available in their field? Yes, No.

2.1. If 'Yes' how?

2.2. If 'No', why not?

3. Are doctoral students offered training on how to access and use information resources in the library? Yes, No.

3.1. If 'Yes', what training is provided?

3.2. If 'No', why not?

4. Are there resources guides in the library for doctoral students to use and search for information they need? Yes, No.

4.1 If 'Yes', how are these guides made available?

4.2 If 'No', why not?

5. List the activities or services you perform to assist doctoral student.

6. Do doctoral students encounter any problem in using any of the library resources, for example, Inter-library loan services? Yes, No.

6.1 If 'Yes', what are these problems?

6.2 If 'No', why not?

7. Do doctoral students encounter any problems in using any of the library resources? Yes, No.

7.1. If 'Yes', what are these problems?

7.2. If 'No', why not?

8. Are the needs of doctoral students different from those of other library users in terms of the use of the library? Yes, No.

8.1. If 'Yes', what are these needs?

8.2. If 'No', why not?

9 From your experience are doctoral students' ability to use the library resources different from other library users? Yes, No.

9.1. If 'Yes', what are these differences?

9.2. If 'No', why not?

10. How would you rate the ability of the doctoral students to use the library resources?

10.1. Very good [] 10.2. Good [] 10.3. Poor []

11. From your encounter with students, do doctoral students face the same kinds of challenges as other students? Yes, No.

11.1 If 'Yes', please describes these challenges.

11.2 If 'No', why not?

12. Do doctoral students ask you for help? Yes, No.

12.1 If 'Yes', what do they ask you for help with? (Please provide examples)

12.2 If 'Yes', how often do they ask you for help?

12.3 If 'No', why not?

13. Do doctoral students book appointments with you before coming to see you for assistance in helping them to use the library resources? Yes, No.

13.1 If 'Yes', how do they book these appointments?

13.2 If 'No', why?

14. Please indicate which of the following library resources doctoral students use the most?

14.1. OPAC (Library Catalogue) [.] 14.2. Electronic databases/resources []

14.3. Materials (Books and Journals) [] 14.4. Theses and Dissertations []

14.5. Reference Collection []

15. Please indicate why they use the above resources the most.

16. What improvements can the library make to the services it offers doctoral students?
